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ABSTRACT

This document is comprised of the six issues in volume 15 of the Harvard Education Letter, a bimonthly newsletter addressing current issues in elementary and secondary education. Articles in this volume include the following: (1) January-February--"Retention vs. Social Promotion: Schools Search for Alternatives" (Kelly), and "School Design Can Say a Lot about Teaching and Learning" (Lawton); (2) March-April--"Co-Teaching: Are Two Heads Better Than One in an Inclusion Classroom?" (Lawton), "What's Working in Sex Education" (Kelly), and "Developmentally Disabled Students Need Sex Ed, Too" (Kelly); (3) May-June--"Learning from Poor and Minority Students Who Succeed in School" (Bempechat), "Preserving Kindergarten in a High-Stakes Environment" (Kelly), "OWLS: Who Can Benefit from Online Writing Labs?" (Walser), and "How Many Environments Does a Child Have?" (Harris); (4) July-August--"Johnny Still Can't Read?" (Farber), "The 'Brain-Based' Ballyhoo" (Lawton), and "Segregation: Stepping Back in Time?" (Gordon); (5) September-October--"Rising to the Discipline Challenge" (Gordon), and "Schools Get Creative To Find Good Subs" (Kelly and Reilly); and (6) November-December--"The Arts Step out from the Wings" (Buchbinder), "The Happy Meeting of Multiple Intelligences and the Arts" (Gardner), and "Tinkering with Title I" (Graves-Desai). Regular features include editorial statements and summaries of recent educational research. (KB)

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HARVARD EDUCATION LETTER

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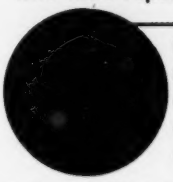
Retention vs. Social Promotion: Schools Search for Alternatives

By Karen Kelly

Earlier this year, President Clinton announced that it was time to end social promotion—the practice of promoting students to the next grade regardless of their academic progress. Since then, it has become clear that educators and legislators are listening. California, Delaware, South Carolina, and Wisconsin have all passed laws forbidding the practice, and, in effect, requiring schools to reinstate retention.

This is the latest chapter in a decades-long struggle to address the problem of the failing student. On the one hand, teachers don't want to see a 15-year-old sitting in a 7th-grade classroom. On the other, they don't want to pass a student who is clearly failing. As a result, the pendulum between retention and promotion continues to swing wildly.

Percentage of 12th-graders who have repeated any grade



Most often repeated grades
- **2nd grade 2.7%**
- **Kindergarten 2.8%**
- **1st grade 5.1%**

Data from 1996 NCES study of 12th-graders. Sample size 1,109

"It follows a seven- or eight-year cycle," says retention researcher Lorrie Shepard, a professor at the University of Colorado at Boulder. "Right now, politicians are seeing retention as the remedy. Once they feel the negative side effects, they'll back off."

According to Jim Grant, director of the Society for Developmental Education in Peterborough, NH, even retention proponents say they're tired of seeing the educational community swing from one extreme to the other. "We've gone from no retentions to a move to retain everyone. That'll devastate a lot of lives," says Grant. "No one's thinking it through."

"It's a shame it's always cast in these terms—retention and social promotion," says Johns Hopkins University professor Karl Alexander, author of *On the Success of Failure: A Reassessment of the Effects of Retention in the Primary Grades*. "There ought to be a lot of things in between. We need to find out about intervention programs that are effective and cost-effective."

A growing number of schools are, in fact, implementing alternative intervention programs intended to beef up academic skills and, in the process, reduce the retention rate. Programs such as mandatory summer school, one-on-one tutoring, after-school programs, and comprehensive, school-wide reforms are popping up all over the country.

Retention: common sense or nonsense?

A 1996 study done by the National Center for Education Statistics found that 16.8 percent of seniors had repeated at least one grade since kindergarten. The most frequently repeated grades were kindergarten through second. In addition, a recent study from the National Academy of Sciences suggests the rate of retention may be higher than that. The researchers looked at 6- to 8-year-old students in the 1980s and early 1990s and found that by the time the students were ages 9-11, 25 to 30 percent were no longer in the appropriate grade for their age group. Part of this may be due to delayed entry into kindergarten.

In many schools, retention is still the preferred remedy. Jim Grant, a former classroom teacher, holds seminars for teachers and encourages them to think of retention as "additional learning time" for misplaced students.

"When you have 365 birth dates and two genders and kids who are low birth weight and are living in poverty, someone is going to be assigned to the wrong grade," contends Grant. "Often you can correct an

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inappropriate placement by having a child repeat the grade."

Research suggests that most U.S. teachers agree with Grant. While parents usually have the final say, the classroom teacher is the one who recommends retention to the principal.

Arizona State University professor Mary Lee Smith interviewed 40 teachers at 10 different primary schools in Boulder, CO. "Few teachers could name one negative effect of retention," writes Smith in *Flunking Grades*. "Almost all stated... they would rather err on the side of retaining a child who possibly might not need it than to promote one who might have needed to be retained. Nor," she adds, "was there doubt that children's achievement and adjustment would be enhanced by a second year before first grade."

Nevertheless, Grant argues that retention is not appropriate for all struggling students. He says it works best for younger students in a class, emotionally immature children of average or high ability, and children who are small for their age. However, a 1992 study by Yale University professor Arthur Reynolds bolstered arguments that a disproportionate number of disadvantaged minority children are retained, as are boys, those who attend urban schools, and children with behavior problems.

Does retention work?

The majority of studies conducted over the last few decades suggest the practice does more harm than good. In a 1989 analysis of 63 empirical studies, University of Georgia professor C. Thomas Holmes found 54 that resulted in overall negative effects. Retention harmed students' achievement, attendance record, personal adjustment in school, and attitude toward school. The studies were conducted in a wide range of districts around the country. The analysis compared retained children in elementary and junior high school to matched groups of equally low-performing peers who were promoted. When Holmes specifically compared 1st-grade retainees to those who were promoted, he found that students who were retained didn't do as well as those who moved on. A year later, when the retainees had finished 2nd grade, they still fell short of the 2nd-grade performance of their promoted peers.

These findings were echoed in Reynolds's 1992 study of 1,200 minority children in Chicago. Twenty percent of the students in his sample were retained at least once between kindergarten and 3rd grade—more than twice the national average. When Reynolds tested their reading skills, he found poor performers who had been promoted moved eight months ahead of their peers who had been retained. In mathematics, the promoted group gained seven months on their peers. By the time the retainees reached 3rd grade, Reynolds found they were still only working at a 2nd-grade level.

Lorrie Shepard has seen similar results in her research. She has conducted several studies on the effects of retention—in particular, its relationship to the dropout rate. In a controlled 1992 study, she found students who repeated a year were 20 to 30 percent more likely to drop out of school. Another study, conducted in 1985 by the Association of California Urban School Districts, found that students who were retained twice had a probability of dropping out of nearly 100 percent.

However, the most recent addition to the retention literature is less condemning of the practice. Johns Hopkins researcher Alexander followed 775 students in Baltimore over a period of eight years; 53 percent were retained at least once, 14 percent more than once. His 1992 study, published in *On the Success of Failure*, found retention was harmless and, at times, offered small benefits.

"It's a shame it's always cast in these terms—retention and social promotion. There ought to be a lot of things in between."

Unlike most researchers, Alexander tracked students' progress before they were retained and found that retention halted failure that had begun in previous years. However, his interpretation of the findings was challenged by Shepard, who contends that test scores rose in retained groups because large numbers of the retainees were placed in special education and were therefore excused from standardized testing. Alexander disputes this claim. He says he's been cast as a "friend of retention," a label he dislikes. "I'm not enthusiastic about retention, but social promotion may be more of a disservice," says Alexander. "We need to find alternatives."

In fact, Holmes's review of retention research identified nine programs that take an alternative approach. He found that the studies with positive results shared several characteristics. Retained students in these studies "were identified early and given special help. An individualized and detailed educational plan was prepared for remediation purposes, and the children were placed in special classes with low student-teacher ratios," Holmes writes. However, when compared to a promoted control group that also received extra help, the retained students still lagged behind.

Reading is key

Without the ability to read, a student is virtually cut off from learning in every subject. Thus, the majority of retentions occur in 1st grade, even though researchers have found 1st-graders often benefit least from the practice.

However, researchers like Gilbert Gredler, author of *School Readiness: Assessment and Educational Issues*, say 1st grade offers educators a golden opportunity to identify and address a reading problem early. "I heard one teacher say to a mother, 'I'm pretty sure they'll need to be retained. That was early in the school year," recalls Gredler. "Rather than giving up, that's when the teachers and the school have to come in with extra help, before retention is even considered."

In fact, a growing number of schools are stepping in with extra help in the form of one-on-one tutoring programs. Perhaps the best known is Reading Recovery, a preventive program that works with students who are performing in the bottom 20 percent of their class.

According to two studies conducted by researchers in the late 1980s, Reading Recovery students substantially outperformed control students on almost all measures of reading. Researchers found the program reduced the number of retentions by 9 percent.

"This is absolutely an alternative to retention," says Ohio State University's Gay Su Pinnel, the program's director. "We should think about reducing retention before it reaches the point of having to retain. This is our greatest chance."

After-school help

After-school programs have also gained popularity as a way to avoid retaining students, but Johns Hopkins University professor Olatokunbo Fashola says there's little research on their effectiveness.

"After-school programs have become very hot," says Fashola, who reviewed 25 programs for the U.S. Department of Education. "But in many studies, they don't use control groups, the students are self-selected, and they rely on interviews to gather information."

One exception is the Exemplary Center for Reading Instruction (ECRI) based in Salt Lake City. This program employs teachers as tutors after school who use a variety of instructional methods in an attempt to reach all learners. In a study of students in grades 2 through 7 in Tennessee, researchers found the ECRI students significantly outperformed those in the control group on the Stanford Achievement Test in reading comprehension and vocabulary. And in North Carolina, administrators were able to track a 20 percent drop in retention over a two-year period of using the ECRI program.

Schoolwide reforms

Reforming an entire school costs more, takes longer, and is significantly more risky. But Robert Slavin, founder of the much-researched program Success For All, says schoolwide reform has distinct advantages for serving kids who need extra help.

"The problem with simply tutoring is you can't tutor everybody. Here, you're serving a much larger number of kids," says Slavin, who's based at Johns Hopkins. "If you have a comprehensive approach with good evidence of effectiveness, then the school has a good chance of getting large-scale improvements."

Research suggests that Success For All can have a significant impact. A study in the Baltimore schools found 1st-grade students were about three months ahead of matched control students in reading. By the time they reached 5th grade, they scored a full grade level higher. The program also strives to eliminate retention as a matter of policy.

Mandatory summer school

In 1996, after years of banning student retention, the Chicago public schools reintroduced a retention policy. This time, however, it offered students a second chance. Any 3rd-, 6th-, or 8th-grader performing one or two years below grade level in math and reading is now required to attend summer school. At the end of the summer, they can retake the Iowa Test of Basic Skills; if they pass, they're promoted with their classmates.

The majority of studies conducted over the last few decades on the effectiveness of retention suggest that the practice does more harm than good.

The school district supplies summer school teachers with lesson plans and a schedule to follow, which focuses solely on reading and math skills. The district's approach has quickly been adopted by other urban districts, including Washington, DC, Milwaukee, Denver, Long Beach, CA, and the 89,000-student Gwinnett County, GA, district.

But of all the interventions being touted as alternatives to retention, mandatory summer school is the least studied. In 1997, the second year of Chicago's new policy, 41,000 students were assigned to summer school. Approximately 16,000 passed the Iowa Test and were promoted; 17,700 did not pass and were retained; and about 7,000 did not finish and were automatically retained. A review by the Chicago Panel on School Policy found 70 percent of the students achieved some gains over the summer.

"It's definitely too early to assess the program's effectiveness," says Barbara Beull, director of the Chicago Panel. "There have been a few small studies, but nothing scientific." Some researchers criticize the use of the Iowa Test as the sole criteria for advancement. Others are keeping an eye on the number of students retained after completing the mandatory summer program. If the summer bridge is effective, then that number should decrease.

Retention retains support

Still, the number of students retained in Chicago, and in many other districts, is on the rise. The question is whether the increased use of interventions will change the impact of retention on these students.

Lorrie Shepard agrees there's a need for more interventions to help struggling students. But, she argues, the extra help will go further when students are promoted. "Students should receive help in the context of their grade-level courses," says Shepard. "Students are usually behind in one area but not in others. Let's not have everything held up by the fact that they need help." ■

Karen Kelly is a freelance writer based in Albany, NY.

For more on retention, see *insights* (p. 8), which features "Promotion or Retention: Which One Is Social?" by Jeannie Oakes.

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What Makes a Good School Violence Prevention Program?

Researchers begin to evaluate established programs

By Laurel Shaper Walters

In the wake of last year's string of school shootings, administrators everywhere are hearing from concerned parents. They all want to know the same thing: What are you doing to make sure our children are safe at school? Strictly by the numbers, school violence actually has declined in recent years, according to "Violence and Discipline Problems in U.S. Public Schools: 1996-97," a U.S. Department of Education report. Yet when it comes to school-related violence, perception speaks louder than reality. After all the media attention in the past year, many parents perceive the problem to be at an all-time high.

In response, administrators are trying every possible approach to inoculate their own schools against violence. On the playground, student mediators stand ready to model peaceful problem-solving skills whenever a conflict arises. In the classroom, teachers focus on anger management and peace building. During assemblies, videos jolt students with scenes showing the consequences of violent behavior. "There's no question that school administrators are feeling political pressure to do something," says Rosalind Brannigan, vice-president of Drug Strategies, a Washington-based research group that recently published a report grading violence-prevention programs. Most school leaders are inundated with "very sophisticated, slick marketing materials," she says. So when something comes across the desk that looks useful, "it's easy to end up making a mistake if you don't have any guidance."

Evaluating violence-prevention programs is inherently difficult, says Ronald Stephens, executive director of the National School Safety Center in Westlake Village, CA. "You're really measuring their success based on what doesn't happen," Stephens says. The goal is zero violent incidents.

Since the field of violence prevention is relatively young, evaluations of even the most widespread programs are still in the early stages. The Centers for Disease Control and Prevention is undertaking a rigorous study of about a dozen violence-prevention programs. But the results are not expected to be released for several years.

Consensus on effective programs

For administrators seeking guidance today, there are some early signs of consensus about which strategies are proving most effective. "Safe Schools, Safe Students: A Guide to Violence-Prevention Strategies," a report from Drug Strategies, is one of the first to take a comprehensive look at the most widely available programs. It grades 84 programs that deal with a broad range of issues from anger management to bullying and conflict resolution. Only ten programs received an A, while 49 received a C or D, underscoring the concern that many of the existing curricula need improvement.

Most school leaders are inundated with "very sophisticated, slick marketing materials. It's easy to make a mistake if you don't have any guidance."

"We tried to provide systematic guidance from the viewpoint of a consumer," Brannigan says. The programs are divided into categories and rated on overall quality, developmental appropriateness, ease of administration, teacher training, and cost efficiency, based on how much it costs to teach 30 students for one year. The strongest programs show up at the middle and high school levels, Brannigan says. "Elementary school programs are the weak link."

What to look for

The best-rated programs are consistent in several areas. For example, they develop school norms against violence, aggression, and bullying by setting strict rules forbidding such behavior and modeling peaceful approaches to problem-solving.

The past few decades have brought dramatic changes in social attitudes about smoking and drunk driving. The same shift is possible for violence, the report argues, if schools help change expectations and raise awareness of the negative consequences. Successful violence-prevention programs must also provide students with the "skills, attitudes, and values that will help them avoid destructive influences," the report says. Such skills include anger management, social problem-solving, and empathy or perspective taking. To be effective, this study says, violence-prevention programs should consist of at least ten sessions in the first year and five to ten follow-up sessions in the next two years.

A K-12 program titled Voices of Love and Freedom received a top rating for its structured approach using children's books to promote literacy skills and prevent violence simultaneously. The elementary-level Peacebuilders program is praised for being a "comprehensive school climate program" that includes "excellent classroom management suggestions." The report notes that preliminary results of the CDC evaluation of Peacebuilders show significant reductions in fighting-related injuries at school.

Much of the criticism of inadequate programs focuses on a lack of instructional detail for teachers and inadequate emphasis on developing critical problem-solving skills in students. For example, a K-12 Conflict Resolution Curriculum published by The Knopf Company receives a D for being "too brief with inadequate guidance for the instructing teacher on the purpose of activities and what to look for during discussions." Street Peace, a high school program from the Bureau for At-Risk Youth in Plainview, NY, is criticized for trying to do too many things in each lesson and not being well organized.

We know what's not working

Facing limited knowledge of what works best, and why, researchers are often

more confident about what is not working in the field of violence prevention, Brannigan says. Therefore, the Drug Strategies report cites several areas where research is already raising "serious doubts." Scare tactics with pictures or videos of violent scenes are undermined by the common "It won't happen to me" attitude of adolescents, the report states. This approach could even backfire, research suggests, since susceptible youth who see violence in a school program may be more likely to act violently afterwards. Separating aggressive students can be counterproductive, research shows, since they lose the positive influence of their peers. Programs that focus exclusively on self-esteem have been shown to be consistently ineffective as well.

Despite their popularity, conflict resolution programs are not holding up well under preliminary evaluation. The Resolving Conflicts Creatively Program (RCCP), one of the most widely known, is under intensive evaluation. The final results are not yet in. However, "early research on conflict mediation programs has shown few long-term effects in reducing violent behavior," states a 1997 report from the ERIC Clearinghouse on Urban Education. According to the report, in schools using RCCP, trained student mediators work in pairs during lunch and recess to identify and resolve disputes among students. This approach tends to focus on the most serious conflicts, the report says, and may end up reinforcing such conflict rather than mitigating it. This report cautions against relying solely on conflict-resolution programs as a panacea for school violence. Much of the research, in fact, points to the need for broad programs that involve a wide spectrum of the community and use several tactics to teach students how to deal with violence and combat it in their daily lives. There is no one-size-fits-all solution to the problem of school violence, concludes a recent report from the Reason Public Policy Institute.

Brannigan cautions school leaders to consider all the options before choosing a violence-prevention program and rethink those choices when needed. "A lot of schools get wedded to a program," she says. "They like it, they've nurtured it, etc. It's hard to then steer the Queen Mary in a different direction." ■

Laurel Shaper Walters is an education writer living in St. Louis, MO.

For further information

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Web Sites:

"Keep Schools Safe" web site provides guidelines on developing safe-school plans and sample policies. Sponsored by the National School Boards Association and the National Association of Attorneys General. **www.keepschoolssafe.org**

Center for the Study and Prevention of Violence **www.colorado.edu/cspv**

Safe Schools Coalition **www.ed.mtu.edu/safe**

School Design Can Say a Lot About Teaching and Learning

By Millicent Lawton

Like many teachers, Ric Packard used to have to run to the school office if he wanted to make a phone call. A couple of flights of stairs stood between him and communication with the outside world. "I'm in pretty good shape, but it was fatiguing," says Packard, a 6th-grade teacher in Vancouver, WA.

Teachers' workrooms and the restrooms, too, were far from his classroom. In short, the kinds of facilities whose proximity most office workers take for granted were inconveniently located.

Packard now teaches at Vancouver's newly built Discovery Middle School, where he and other teachers—as well as parents and community members—all had input into how the school should look and be laid out. Since opening in 1995, the school has won several design awards, including the James D. MacConnell Award from the Council of Educational Facility Planners International—an accolade some call the Academy Award of the school architecture world.

Each of the school's three instructional wings has a multipurpose staff room where teachers can eat lunch or have a meeting. These rooms are full of amenities: bookshelves, computer, phone, copy machine, microwave oven, refrigerator—and a restroom. In each classroom, teachers and students have access to a "smart center," featuring a telephone, television, videocassette recorder, computer, and intercom.

The traditional classroom, which limits space and movement and supports the self-contained classroom style, is still with us.

Design for learning

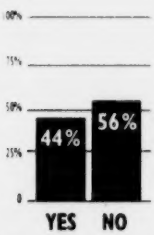
Packard says it's made a difference, leaving him less harried and better prepared to teach. His experience is but one illustration of how some believe teaching and learning may be improved by the design of a school building. While many factors contribute to student achievement, advocates argue that educational facilities need to be an essential part of improving education, especially as educators move toward such popular strategies as cooperative learning, group projects, or team teaching.

Many factors go into creating better-designed schools and no one approach is the answer. Creating a more positive physical environment depends on a school's individual circumstances. For example, Lorraine E. Maxwell, assistant professor of design and environmental analysis at Cornell University, documented 1st- and 2nd-graders' difficulty in acquiring language skills in a school awash in the noise from the runways of a New York City area airport, where the roar of jumbo jets interrupted classroom activity every six minutes.

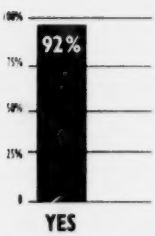
Beyond the bare minimum, the design of a school should support the learning expectations of students. In a school that emphasizes cooperative learning, there has to be space for small group meetings. In a school where

students perform research outside the school walls, then there must be easy access to telephones. For example, at the School of Environmental Studies, an alternative high school in Apple Valley, MN, students spend time in spaces designed to mimic the world of work they will soon enter. (See "Design Fosters Learning at Zoo School", p. 7).

From a national survey of 1,050 educators:



Percentage of educators who had been asked for input about design or renovation elements



Percentage of educators who would be willing to serve on a construction advisory committee

3.6 hrs/week

The average amount of time an educator was willing to devote to the committee

Short of an overhaul

Improvements can be made without spending millions on a new building. Fold-away partitions and walls can aid team teaching and group projects. Soft, moveable furniture, drop-down tables, and pop-up stages can be relatively inexpensive and worthwhile investments. Such features can help support a variety of teaching and learning methods in what may otherwise be a traditional classroom or school. "The traditional classroom, which limits space and movement and supports the self-contained classroom style, is still with us," write University of New Mexico architecture professor Anne Taylor and architect George Vlastos in *School Zone*. "If education is to address itself to the individual, we need to examine ways to offer an alternative route to that objective."

Research to come

Unfortunately, there is little scholarly research on school design and how much of an effect it can have on teaching and learning. However, one notable study done in Washington, DC, in 1990-91 found that the physical condition of the school is statistically related to student achievement. Researcher Maureen M. Berner found that if a school's condition improved just one level on a four-level scale ranging from "poor" to "excellent," it was associated with a 5.5-point improvement in students' average academic achievement on standardized tests.

Nationwide, the design issue is attracting more attention. In October 1998, the U.S. Department of Education and the White House Millennium Council cosponsored a conference on school design. And at least two major research universities, the University of Virginia and the University of Washington, have in recent years launched joint ventures between their education and architecture departments to look at the physical environment and how it affects learning. George H. Copa, professor of education at Oregon State University, also expects results in June from a study he is conducting on how the innovative designs at an alternative high school in St. Louis, MO, and the School of Environmental Studies affect learning.

"We're building brand new schools left and right that are the same old tired examples."

At a time of both necessity and opportunity—with the U.S. undertaking a huge wave of school construction and renovation—some progressive educators, architects, and school facility planners argue that many of their colleagues are missing their chance. "We're building brand new schools left and right that are the same old tired examples," says Jeffery A. Lackney, director of the Educational Design Institute at Mississippi State University. "A lot of schools," he says, "are basically more big boxes."

Such "boxes" are no longer appropriate, argues Steven Bingler, an architect and president of Concordia Architects in New Orleans. Educational delivery has changed, he says, moving beyond the "factory model" of schools in which students almost literally entered one end of a building, moved down a central corridor collecting discrete chunks of knowledge, and emerged at the other end with a diploma.

Partnerships are important

Today, innovators encourage faculty, students, parents, and other members of the community to work together to envision what a school should be—whether it's a new or existing building. "More and more schools are trying to say what is unique about us and who in the community can help us achieve that vision or goal," says Lackney.

Indeed, a national survey of teachers, principals, and assistant principals found that 96 percent thought school design was an important part of a good learning environment. Ninety-two percent said they would be willing to devote nearly four hours a week to collaborating with facility planners on school design. But most had never been asked for their input, according to a 1998 survey by Beth Schapiro & Associates.

A learning signature

Copa recommends that a school develop what he calls a "learning signature" or a notion of what is special about that school. It could relate to how the school approaches learning, its ties to the community, or its curricular focus. The school should have a "significant story that captures people's spirits and attention and gives coherence to the school." Then, he says, "the physical design of the school should follow along with that signature and carry it forward."

In Vancouver, a learner-focused mission has been driving that district's eight-year, $242 million building and renovation project that has enveloped 27 of the district's 36 buildings. The school designs reflect the district's philosophy of a three-part learning experience for students: individual learning, cooperative learning, and large-group learning. To aid individual learning, computers and study carrels are found throughout schools, says Superintendent Jim Parsley. Cooperative learning takes place in spaces designed to be multipurpose and flexible, and large-group instruction can occur in many spots: the band room, a lecture hall, or as part of interactive distance learning that electronically links teachers with groups of students.

In a school like Vancouver's Discovery Middle, pleasure reading—an

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endeavor some middle schoolers shun—gets its own inviting space: a large, comfortable area with big windows called the "loft," which houses the school's fiction collection. A video production and control room allows students to practice delivering their own closed-circuit video news broadcasts. Projects or lab experiments take physical shape in the "tool box" area, where students have access to computer equipment, a reference collection, a lab, and a construction area all in one large space. "Such changes are needed in order to provide a more personalized learning experience for each student that can hook them into school," says Tom Hagley, Jr., assistant to the superintendent in Vancouver.

Despite some pockets of excellence in school design, though, Lackney is realistic about how long it is going to take to transform educational facilities. "If we're talking about future schools, we're going to have to wait until 2025," he says, before new ideas play out in bricks and mortar. ■

Millicent Lawton, formerly a reporter for Education Week, *is a freelance journalist based in Wellesley, MA.*

Design Fosters Learning at Zoo School

By Millicent Lawton

If any school can claim to exemplify cutting-edge thinking about knitting school design together with effective teaching and learning, it's the Zoo School. Formally the School of Environmental Studies, the Zoo School is an alternative high school in Apple Valley, a suburb of Minneapolis that happens to be located next door to the Minnesota Zoo.

George H. Copa, an education professor at Oregon State University, recommends that every school have a "learning signature"—a purpose or guiding theme (see "School Design Can Say a Lot About Teaching and Learning", p. 5). At the Zoo School, one of the first sights to greet someone, Copa points out, is a wall covered entirely with climbing plants. Nearby are aquariums, and running through the halls is the school's own dog. "Right away, you know what the school's about," Copa says of its environmental focus.

At the Zoo School, one of the first sights to greet someone is a wall covered entirely with climbing plants.

The $5.4 million, 68,000-square-foot school, which opened in 1995, enrolls about 400 students in the 11th and 12th grades, all of whom have chosen to attend there. The project's lead architect—and a prominent thinker on school design—was Bruce Jilk, then of HGA, and now of the Cunningham Group, both located in Minneapolis.

Both its interior design and its location make the school unusual. A curricular unit on species extinction takes on new meaning when students can work with zoo staff in charge of such endangered species as Komodo dragons and trumpeter swans. The world's premier database for Siberian tiger genetics is also next door and available to students for academic projects. Nearby parks and woodlands make it possible to survey plant and animal species.

The school—where incidents of vandalism or theft are nonexistent—has no traditional classrooms. Instead, there are many open spaces that can be used for a variety of purposes. The school's large foyer acts as a commons. It can hold large groups for a lecture or serve as a lunchroom or as a place to display student projects. As Todd Carlson, a social studies teacher says, "It's flexible space that doesn't belong to anybody."

Flexibility works

Upstairs there are four "houses" or spaces that hold groupings of 100 students each. Within each house are 20, five-student workstations. Each student has his or her own desk, separated by chest-high partitions. The workstations are grouped around a central open space used for lectures or larger group activities. The area resembles a professional office more than it does a traditional school. Each house also has its own science laboratory, teacher planning room, and conference room. The open, flexible space aids instruction and permits a freer exchange of ideas among teachers and students. At times, teachers work one-on-one with students on projects; at others, three teachers might work in interdisciplinary fashion with 100 students.

The school seems to be a hit with faculty and students. Senior Ben Kirtz says he likes having his own desk where he can go to work when he needs to. "It's like you own part of the place, it's your home," he says. Anne Wiegand, a senior, says that because the school is small she feels connected to everything. She said she felt disconnected from teachers at her former high school, but not at the Zoo School. "These teachers care about you sincerely because they do get to know you personally."

The school works on many levels, Wiegand adds. "It's a holistic building. It goes right along with the holistic curriculum." ■

Contact: Dan Bodette, Principal, 12155 Johnny Cake Ridge Road, Apple Valley, MN 55124; www.isd196.k12.mn.us/Schools/ses/sesmain.html

For further information

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Council of Educational Facility Planners, International. 602-948-2337. www.cefpi.com.

HGA Educational Design Group, 1201 Harmon Place, Minneapolis, MN 55403; www.hga.com/division/ed.htm.

Tom Hagley, Jr., Assistant to Superintendent, Vancouver Public Schools, P.O. Box 8937, Vancouver, WA 98668; 360-737-7382.

Promotion or Retention: Which One Is Social?

By Jeannie Oakes

President Clinton and a good many other political leaders have made opposition to social promotion a cornerstone of their education initiatives. The overwhelming trend of the evidence cited in this issue of the *Har ard Education Letter* (see p. 1) and elsewhere shows that grade retention has negative results for students. Rarely has social science research been so consistent about the effects of any educational practice. Arguing against social promotion may be politically popular, but retention simply doesn't work.

No sensible person advocates social promotion as it is currently being framed—simply passing incompetent students on to the next grade. Most thoughtful observers recoil not only at the educational folly of such a practice, but also at the social injustices that accrue as students of color—already disadvantaged by less than optimal schooling—disproportionately suffer from either being passed along without grade-level skills or being further disadvantaged by retention.

Masking a complex decision

Nearly all researchers and education policy analysts agree that it is best to avoid a retention/social promotion decision by giving students appropriate opportunities for learning—including qualified teachers, extra help, and additional resources. Most important, nearly everyone cautions against simplistic, formulaic choices between the poles of pass or repeat. Social promotion and retention both try to remedy problems after they've occurred, rather than preventing them or nipping them in the bud. Extra resources would be especially useful if teachers could call for them when they first notice a student's problem. Many more appropriate options get overlooked when social promotion and retention are the only policy choices.

Despite the evidence, we find ourselves immersed in a bipolar debate in which one choice—social promotion—is supposedly based on soft, social factors (e.g., concerns about self-esteem or separating a student from his peer group), while the other—retention—is supposedly based on hard, objective academic criteria. From this perspective, the choice based on non-social criteria is clearly good, while the one based on a social decision is clearly bad. Yet, when we look closely, we find that when students don't meet particular learning goals, the decision to promote or retain is always a "social decision," no matter what the outcome.

Social promotion and retention both try to remedy problems after they've occurred, rather than preventing them or nipping them in the bud

Retention is as social as "social" promotion

While most advocates do not think of retention as "social," many of the arguments in favor of retention do, in fact, have a strong social basis. Take, for example, the argument that the threat of retention will improve student (and teacher) performance. This notion is based on flawed social and psychological theories of social "pressure" rather than on anything resembling what we know about learning and motivation to learn. Further, retention advocates often rely on arguments suggesting that increased moral flabbiness and social damage will result if schools use anything other than hard, objective knowledge and skill standards to screen students into or out of the next grade.

Over the last 30 years, our society has become firmly wedded to the notion that all students can and must learn at very high levels. However, we've been less eager to advocate for the rich educational environments, well-prepared teachers, and the un-standardized practices that achieving such success requires. Retention is in some part a political attempt by policymakers, and those with the power to influence them, to accommodate this new rhetorical standard of all children learning while leaving in place powerful social norms that sustain the status quo of schooling. Retention policies allow us to perpetuate our ideology that, even if all children can learn, school (and life) success comes only to those who demonstrate their merit and competence by competing with others in a lockstep educational system. Retention also presses us to maintain our faith in standardized, norm-referenced testing as a scientific, fair, and meaningful way to judge both children's learning and their merit. We are left with an absurd combination of lofty goals and hard-nosed reality: All children may be able to learn, but only those in the specified quartiles on the test can pass.

Attacking the very real problem of low achievement with retention makes for more compelling political rhetoric than advocating more complex and costly strategies for quality education. Denigrating promotion by calling it social might do something for political campaigns, but it surely does nothing to improve schooling for the children who need it most. ■

Jeannie Oakes is professor of education at UCLA. Her most recent book (with Martin Lipton) is Teaching to Change the World *(McGraw-Hill, 1999).*

Coming next issue...

Team Teaching in Inclusion Classrooms

When Are Kids Ready for Kindergarten?

What's Working in Sex Education?

Published by the Harvard Graduate School of Education

March/April 1999
Volume 15, Number 2

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The Research Feature
This month, the focus is on co-teaching:

- An extensive interview with the co-teachers featured on page 3.
- Carefully selected online educational links and resources, including links to schools that have co-taught classrooms.

The Forum Feature
A transcript of poet Luis Rodriguez's recent HGSE Forum discussion about his experiences with gang intervention, poetry, and school.

...and much more!

Co-Teaching: Are Two Heads Better Than One in an Inclusion Classroom?

By Millicent Lawton

When Ronni Swan's principal at Starms Discovery Learning Center in Milwaukee asked her to co-teach this school year with a special educator, Swan balked. A general education teacher, Swan had already had a bad experience trying to co-teach, and the memory made her leery. But the push on co-teaching was part of the multiage elementary school's mission to weave disabled students into all regular classes. So, Swan agreed reluctantly—and then worried.

As it happens, her pairing with teacher Paige Richards has worked so well it's made her a believer in co-teaching. "I would never go back to just teaching regular ed [by myself]," Swan says firmly. "It's no fun. It's lonely." Swan also believes the students benefit academically from having two teachers present, each with different strengths. Swan's strong suit is language arts, while Richards' is science.

Richards, the special educator, also raves about co-teaching and being able to mix special ed and regular ed children together. "I feel like the benefits of inclusion far outweigh anything in a self-contained [special education] classroom," she says. She cites in particular the progress of one 10-year-old mentally retarded boy she has taught for three years in an inclusion class at the school. When he started in the multiage class, the boy had poor social skills and couldn't stay on task. Now the boy can "tell you what he did over the weekend. He can tell you two or three things in a row, on a topic, and then switch to something else. That's a goal we had for his IEP (Individualized Education Plan)."

Growing Interest

Swan and Richards are just two of a growing number of educators who are experimenting with cooperative teaching, or the practice of pairing a special educator with a regular educator in a single classroom. As educators strive increasingly to include students with disabilities in the classroom, the need for regular educators to have greater expertise with students with special needs—or to have greater support from specialists—increases as well. "Collaboration is fast becoming one of the most popular service delivery models," wrote researchers Peggy T. Reeve and Daniel P. Hallahan in a 1994 report. In the report, they tried to answer practical questions about co-teaching, while noting that interest from teachers was outpacing researchers' ability to study the practice.

"Co-teaching is riding a wave of heightened interest in collaboration that benefits the teachers as well as the students."

Co-teaching is also part of a larger trend among teachers who see the benefits of working with their colleagues in many ways. "Co-teaching is riding a wave of heightened interest in collaboration that benefits the teachers as well as the students," says Alan Gartner, a professor at City University of New York and a co-director at the National Center on Educational Restructuring and Inclusion (NCERI).

The full-blown model of co-teaching—where two teachers are paired full time—is still relatively rare. Elementary schools, in particular, are beginning to inch toward the idea by reshuffling the way special needs services are provided and pairing special needs teachers with regular teachers at least for part of the school day, says Gartner.

Some experts emphasize that they are primarily talking about using co-teaching in a classroom where the special education students are those with mild to moderate learning disabilities. This group should comprise only about 10 percent of the students in the class so as not to

overwhelm the educators, says James McLeskey, a professor of curriculum and instruction at Indiana University in Bloomington. He notes, though, that he has seen classes work where up to 25 percent of the students in one class were identified as disabled.

Setting Up the Partnership

What does co-teaching look like? Jeanne Bauwens, an education professor at Boise State University and an authority on co-teaching, has identified three models of co-teaching that might be used during the course of a single period or day. In the *complementary instruction approach*, the classroom teacher is primarily responsible for teaching content, while the special needs teacher focuses on providing the students with "how-to" skills or strategies. In the *team teaching model*, one teacher delivers the curriculum content while the other clarifies, paraphrases, adds information, or uses visual aids to try to enhance understanding of a new concept. A third variation, the *supportive learning activities approach*, has the special education teacher overseeing activities such as partner or group learning or peer tutoring, while the general educator delivers the curriculum.

What co-teaching should not mean, says Daniel J. Boudah, an assistant professor of educational psychology at Texas A&M University in College Station, is a chance for one of the pair to leave to get a cup of coffee or to make photocopies. Teachers must also avoid relegating the special education teacher, especially, to a role of glorified aide.

One point of consensus among those who practice, study, and advocate co-teaching is that teachers must agree to co-teach voluntarily, although ultimately schools must decide what is best for students. Experts also warn against unrealistic expectations. "One is keenly aware that effective collaboration requires more than two educators with good intentions," write Reeve and Hallahan in response to one case study. "Professionals must judge models of collaboration by their effect." This means being careful to focus on how the students are learning, not just on how the collaboration is working.

Promises of Co-Teaching

The potential benefits of co-teaching can be many, according to qualitative research studies. Teachers can obtain personal and professional support by working closely with a colleague and by their exposure to a wider range of students. Special education teachers can also get a better sense of how their students are faring in regular classrooms.

Students in co-taught classrooms gain the attention of a second teacher, which can be especially helpful for those who may not have been formally identified as having special needs, but who may need additional help. Having a special education teacher in the classroom may also help identify a student's learning problems early or avoid unnecessary referrals to special education. Special education students can receive a more enriched curriculum than they would in tutoring sessions with specialists only, argues Gartner. The other students can benefit from a variety of teaching and learning styles. Gartner remembers one situation in which two co-teachers decided to teach sign language. "As it turns out, the sped teacher, Kim, couldn't learn it for anything. The kids had such fun seeing Kim stumble and they learned that learning is a process and falling down is a process. The kids were willing to risk failure after seeing Kim fail and not be devastated."

Teachers must also avoid relegating the special education teacher to a role of glorified aide.

Advocates argue that co-teaching is an approach that closely follows the intent of the 1997 reauthorization of the federal law governing special education practices. The Individuals with Disabilities Education Act now requires that at least one regular education teacher participate in meetings that determine the IEP for each child with a disability, says Thomas Hehir, director of the Office of Special Education Programs at the U.S. Department of Education. The reauthorization also calls for IEPs to show how the disabled child is going to benefit from the general education curriculum or have access to that curriculum, Hehir says.

Indeed, the federal special education law has been revised with an eye to encouraging collaborative teaching, says Hehir. The statute has been amended to allow special education teachers who are funded with federal money to work both with disabled and nondisabled students. "Under the new law there's much more flexibility," Hehir notes, "and that is to encourage co-teaching, to encourage teachers working together, and to benefit all kids in the classroom."

A recent report by the National Research Council on preventing reading disabilities also underscores the particular need for consistency in instruction of reading. The 1998 report recommends that reading instruction delivered by specialists be coherent with what is being taught in the regular classroom.

Too Good to Be True?

While in many ways co-teaching sounds like an ideal arrangement, the ideal can be difficult to achieve, say researchers. Finding time to plan and coordinate is one of the more persistent problems. Joint planning periods can be impossible to schedule if the principal balks at a schedule change. But the creative use of substitutes or before- or after-school meetings can solve the planning time problem. One administrator's enthusiasm and support of co-teaching extended to substituting in the teacher's class in order to free the teacher for planning.

Practitioners and researchers alike argue that co-teaching need not be an expensive proposition. "If you try to staff a new program like co-teaching and still maintain your old system, then, yes, it's more expensive, because it's an add-on," says Sandy Cole, director of the Center on Education and Lifelong Learning at the Institute for the Study of Developmental Disabilities at Indiana University in Bloomington. But, she says, "If you think about it and say how we can reorganize our teaching practice and how we deliver services to kids and use our staff more effectively and more efficiently, then it doesn't cost any more money."

As a former administrator and principal, Cole has overseen the introduction of co-teaching in both a high school and an elementary school. In neither case, she says, did it cost more money.

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At Bloomington High School North in Bloomington, IN, special education students from self-contained classes were put in regular classes and, in effect, their teachers were mainstreamed, too. Between about 1991 and 1994, the school went from having 21 self-contained special education classrooms to just four. Today, the school features co-teaching in each of its core academic subjects, with special educators co-teaching the class periods in which special education students are scheduled.

At Southside Elementary School in Columbus, IN, the three special education teachers sorted themselves to work either in grades K-3, 4-5, or in part of grade 5 and all of grade 6 to reflect the distribution of special needs students. By limiting the grade levels they covered, the trio could spend more time in each class. The presence of multiage classrooms helped consolidate the educators' efforts.

More Evaluation Needed

So far, research on co-teaching has focused more on the process and less on the effect on achievement for either special education or regular education students. That has led to criticism from prominent figures in the field.

"There's been a stampede to the conclusion that one very important way of

Inclusion Terms

Co-Teaching: Special education teacher co-teaches alongside the general education teacher.

Parallel Teaching: A special education teacher works with a small group of students from a selected special student population in a section of the general education classroom.

Co-Teaching Consultant Model: A special education teacher still operates a pull-out program, but also co-teaches with in the general education classroom several hours a week.

Team Model: Special education teacher teams up with one or more regular education teachers to form a team, which is then responsible for all of the children in the classroom or at a particular level.

Methods and Resources Teacher Model: A special education teacher, whose students have been distributed in general classes, works with the general education teacher.

Source: National Center on Educational Restructuring and Inclusion, Bulletin No. 1, Spring 1994

After Initial Reluctance, Co-Teachers Say They Wouldn't Have It Any Other Way

By Millicent Lawton

Special education teacher Greg Philippsen was a bit reluctant 10 years ago when an administrator at Bloomington High School North in Bloomington, IN, suggested he co-teach with math teacher Andy Strawn. It was not because he had any bad feelings about Strawn, he emphasizes, but because he felt comfortable with the existing system of teaching special education students in the school.

At the time, he was doing solely "pull-out" and resource room work, assisting special education students individually and in small groups to reinforce concepts taught in the mainstream classroom. The head of student services, Sandy Cole, was in charge of special education and was working with a small group of teachers to figure out how to include students with disabilities in regular education. After studying co-teaching for about six months, they decided they wanted to pursue it. Strawn and Philippsen were one of the first two pairs of teachers she asked to inaugurate the practice at the school.

Philippsen now teaches one resource room period, co-teaches two regular math courses—and has changed his point of view. "The self-contained [special education] program assumes a ceiling on what the kids can do," Philippsen says. With the support of two teachers in the mainstream classroom, he says, "There's no ceiling."

There are 34 students in the Algebra I course that Philippsen and Strawn co-teach two or three times a week in an 85-minute block of time. About 14 are identified as having disabilities, primarily learning impairments and emotional handicaps. Philippsen says the students with disabilities in the co-taught class are achieving "levels of math I never would have thought possible."

Strawn, who is in his 29th year of teaching, says he is also a believer in co-teaching—at least with Philippsen, who is a 21-year teaching veteran. "I wouldn't trade it for anything," Strawn says. He says the ongoing professional development is a huge plus. "The greatest thing about it is I've been able to learn from somebody else who's a really good teacher," Strawn says. He credits some of that feeling of symbiosis to the year he and Philippsen spent talking about and planning their upcoming partnership before they ever stood together in front of students.

The benefits of co-teaching are manifold for the students and for smooth classroom management, Strawn says. If someone appears at the classroom door, the teacher who's not talking to the class can attend to what would have been an interruption, while the other keeps teaching. And, one of them can kneel down next to a student needing help "without stopping [the class] or shining a spotlight" on them, Strawn says. Students find it harder to act up in the presence of two teachers, and the emotionally handicapped students get positive reinforcement from peers not to act up, the pair say.

The special education students do not get short-changed under co-teaching, Philippsen says. "I think that was one of my initial concerns, but now, with two teachers in the classroom, all the students get so much attention to academics, to behavior," he says. "I don't see any student with special needs going unnoticed." In addition, he says, each of the inclusion students has a resource room period during the day when they can get additional help.

Regular education students have benefited, too, the teachers say. "I'm dead sure every kid is getting more attention," Strawn says. Because of some of the strategies the teachers use classwide to help everyone learn math better, the regular education students benefit, too.

There may not be a lot of research into co-teaching's effectiveness, Strawn acknowledges, but he believes that "in every way kids are being helped—and more important, teachers are being helped." He said that's "a benefit that doesn't show up on any numerical measures, but you feel it every morning." ■

Visit our website for an extensive interview with Greg Philippsen and Andy Strawn. www.edletter.org

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implementing inclusion is co-teaching," says Doug Fuchs, a professor of special education at Vanderbilt University in Nashville, TN. "We have no evidence that it promotes satisfactory student achievement," he cautions. Much of the existing descriptive research suggests that "co-teaching oftentimes involves teachers not working with one kid for sustained periods in a sustained manner, [but] working with a kid fleetingly in the back of the room or with groups of kids." He argues, "Many kids need individualized services. I'm deeply skeptical that all of those kids can get that in the general education classroom. Co-teaching is a risky enterprise."

A few quantitative studies are beginning to point to positive academic benefits for students in co-taught classes. A 1996 review of research about co-teaching by Noell Reinhiller, an assistant professor of education at the University of Minnesota, Duluth, examined evidence from published studies about the effectiveness of the practice. Out of ten studies reviewed, two offered quantitative data related to student outcomes in which the results could be attributed directly to the co-teaching arrangement.

However, a few studies on co-teaching's effectiveness have raised doubts. Two researchers, Janice M. Baker from Vanderbilt and Naomi Zigmond from the University of Pittsburgh, analyzed case studies of inclusion in five elementary schools in five states.

Co-teaching was a part of all five schools' inclusion models, but special education teachers were typically in and out of several classrooms a day. The researchers found that special education students were not getting very much that was special. "We saw almost no specific, directed, individualized, intensive, remedial instruction of students who were clearly deficient academically and struggling with the schoolwork," the authors wrote.

Meanwhile, Boudah and his colleagues have drawn their own conclusions about engagement and performance of students with mild disabilities in co-taught secondary classrooms. In a 1997 study, they found that mildly disabled students and low-achieving students had a low level of engagement in such activities as raising their hands, recalling prior knowledge, or using a strategic skill. And, while some strategic skills improved for both kinds of students, test and quiz scores decreased slightly for the mildly disabled students and improved just slightly for the low-achieving students. Boudah says that educators should not discount the possibility that some students with disabilities should continue to attend "pullout" programs in which they receive more individualized, intensive instruction—even if they're in a co-taught class. "Kids with learning disabilities, in particular, need a lot of repetition," Boudah says.

The teachers in his study, Boudah notes, were new to co-teaching. More positive results might not have turned up because they were still learning to work together, he says. Advocates of co-teaching agree that's a key point to keep in mind when assessing a relatively new practice in which co-teachers are still feeling their way. Or, as Cole puts it: "To collect the hard data about how well it's working, you have to have people willing to try it." ■

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What's Working in Sex Education

Abstinence-plus programs are proving more effective, but some still search for alternatives

By Karen Kelly

It's estimated that 11 percent of American women between the ages of 15 and 19 will become pregnant this year. According to the Alan Guttmacher Institute, that's the highest rate of teenage pregnancy among industrialized countries—twice that of Britain and 14 times the rate in Japan. At the same time, the Centers for Disease Control predict that one of every four new HIV infections this year will occur in the teenage population. Everyone agrees there's a problem, but parents, educators, and politicians are deeply divided over how to go about solving it.

In his 1995 State of the Union Address, President Clinton called for the creation of the National Campaign to Prevent Teen Pregnancy, which identifies effective teen pregnancy programs around the country. Most are "abstinence plus" programs, which promote abstinence as well as the use of birth control. The following year, Congress passed the Federal Abstinence Education Block Grant as part of the welfare reform law, which provides 50 million dollars annually to programs that focus solely on abstinence.

Both types of sex education programs are used in U.S. schools. But the research delivers a clear message on their effectiveness: abstinence educatio.. alone is not enough. "There does not currently exist any scientifically credible, published research demonstrating that [abstinence-only programs] have actually delayed the onset of sexual intercourse or reduced any other measure of sexual activity," writes researcher Douglas Kirby, a long-time sex education researcher with ETR Associates in California, in *No Easy Answers: Research Findings on Programs to Reduce Teen Pregnancy.*

The 1997 report, commissioned by the National Campaign to Prevent Teen Pregnancy, is the first major publication to summarize the literature, critique the research methods used, and profile the most successful sex education programs across the country.

Kirby identified a variety of approaches commonly used in schools, including abstinence only, "abstinence plus" programs, and school-based health clinics. He also studied youth development programs, which don't focus on sexuality but are designed to improve educational and career opportunities for teens.

The report's conclusions are clear: when it comes to reducing teenage pregnancy and

unsafe sex, abstinence programs do not work as effectively as abstinence-plus curricula and youth development programs.

Emphasizing Protection

As the name suggests, abstinence-plus programs promote abstinence as well as contraceptive use to prevent pregnancy and protect against sexually transmitted diseases. Of the 20 states that require schools to teach sex education in this country, 13 require that this type of program be used. It's also the most widely studied. Kirby reviewed 21 published studies and found that some, but not all programs, reduced risky sexual behavior and/or increased the use of contraceptives.

"Several studies with credible evidence found desirable effects upon delay in the initiation of intercourse, frequency of intercourse, number of sexual partners, use of condoms or use of [other] contraceptives," writes Kirby. In contrast, among the six published studies on abstinence programs, only one showed a minimal effect on sexual behavior.

Among the abstinence-plus curricula, some of the best results have emerged from programs that focus on preventing AIDS and other sexually transmitted diseases. Six of the nine HIV prevention programs Kirby reviewed found a significant increase in contraceptive use among teens enrolled in the program, when compared to those in a matched control group.

A Philadelphia-based program, Be Proud, Be Responsible, stands out as one of the most effective. The five-hour curriculum, which is offered on a Saturday, teaches youth negotiating skills they can use to maintain abstinence or practice safe sex. The students watch educational videos and are shown how to use condoms. The program was developed by a husband and wife team, University of Pennsylvania researcher Loretta Jemmott and Princeton University's John Jemmott. It relies heavily on role-plays, in which students practice safe-sex negotiations.

"For instance, young couples need to negotiate condom use. In many cases, he doesn't want to use it and she does," says Loretta Jemmott. "We teach them to deal with issues of trust and disease prevention. We tell them the proud and responsible thing to do is to either use condoms or abstain from sex. They have goals and dreams and they want to do the right thing, but they don't always have the skills and confidence to do it."

The Jemmotts tested the program with junior high and high school students, using both adult and peer facilitators. In all cases, the program had a positive impact.

"We found significant effects on participants' beliefs about the consequences of unprotected sex, as well as on their intentions for future sexual activity," says John Jemmott, who published three studies demonstrating the effectiveness of Be Proud, Be Responsible, which were reviewed by Kirby. "There was also less sexual behavior, increased condom use, and fewer partners in the three-month follow-up study."

Jemmott says the program strives to increase students' knowledge about sex and birth control and encourages them to take responsibility for their own sexual behavior.

Abstinence programs do not work as effectively as abstinence-plus curricula and youth development programs.

Thus far, Be Proud, Be Responsible has only been used in predominantly African-American schools, but Jemmott believes it can and should be tailored to fit the needs of other communities. Regardless of the school, Jemmott says he always begins by asking the students themselves to describe their beliefs and concerns about sexuality. "We went through that process in every city where the program was implemented. You need to change the role plays, the scenarios, even the names to make it more relevant."

Be Proud, Be Responsible is also one of five programs endorsed by the Centers for Disease Control's Division of Adolescent and School Health. In 1992, the CDC began using a portion of its funding for HIV research to identify sex education programs that are effective at reducing HIV infection and pregnancy. Among other things, programs must be scientifically evaluated, they should rely on a variety of teaching methods, and they must offer both factual information and teach negotiation and refusal skills.

Known as the Research to Classroom Initiative, the CDC effort also offers training sessions to help schools implement these programs. In addition to Be Proud, Be Responsible, the division has approved four other programs: Get Real About AIDS, Becoming a Responsible Teen, Focus on Kids, and Reducing the Risk, a program designed by Kirby.

"The most effective sex education programs do not involve rote memorization and lecturing on the part of the teacher," explains Stephen Banspach, chief evaluator for the Division of Adolescent and School Health. "These programs give young people the skills to communicate and protect themselves."

A more recent study by Kirby provided even stronger evidence of the effectiveness of abstinence-plus programs. With funding by the CDC, Kirby's research firm, ETR Associates, joined University of Texas researchers in a controlled study of 20 high schools using Safer Choices, an abstinence-plus program developed by Kirby and the University of Texas. The schoolwide intervention included 20 sessions of safe-sex education, a media campaign, parental involvement, and community speakers.

"Our primary message was, 'Unprotected sex is unsafe and abstinence is the safest,'" says Kirby of the Safer Choices campaign. "We had a very specific focus—to reduce unprotected sex. Every activity in those 20 sessions was focused on that goal."

The findings were presented at a recent meeting of the American Public Health Association and at the International AIDS Conference. The researchers reported that the program had a significant effect on the participants' use of condoms and it reduced the number of times they had unprotected sex. In the three months following the program, participants reported 1.5 incidents of unprotected sex. In contrast, those in the control group had unprotected sex 2.4 times on average.

"This is one of the largest, best evaluated studies of its kind," says Stephen Banspach, who investigated Kirby's study on behalf of the CDC. "It may well become part of our Research to Classroom Initiative."

However, the vast majority of these studies rely on students' own recollection of their sexual behavior. While researchers can't observe this behavior

Sex Education Programs Endorsed by the CDC

Be Proud, Be Responsible. One-day, 5-hour curriculum for youth ages 13-18. Provides safe-sex knowledge and skills, teaches negotiation and role-playing techniques. Contact John Jemmott, Princeton University at 609-258-3000.

Reducing the Risk. Seventeen class period curriculum for middle and high school students. Provides safe-sex techniques and knowledge, helps students develop plan for sexual behavior, teaches communication skills to avoid high-risk situations. Contact ETR Associates at 800-321-4407.

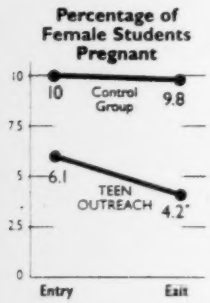
Get Real About AIDS. Fourteen class period curriculum for high school students. Covers myths and facts about HIV, condom instruction, teaches skills to avoid risky situations. Contact Altschul Group Corp. at 800-323-9084.

Becoming a Responsible Teen. Eight 1- to 2-hour sessions with African-American teens age 14-18. A sexually explicit education program that includes HIV prevention information, risk recognition, and behavioral skills training. Contact ETR Associates at 800-321-4407.

Focus on Kids. HIV Awareness Program, seven 1-1/2-hour sessions and one all-day outing with urban youth ages 9-15. Provides HIV and STD information and teaches communication and negotiation skills with sexuality and drug use. Contact ETR Associates at 800-321-4407.

Source: Research to Classroom Initiative, Division of Adolescent and School Health, Centers for Disease Control; information available at www.cdc.gov.

Teen Outreach Program Entry to Exit Changes



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Tests are for difference between groups at exit after accounting for differences at entry and effects of sociodemographic characteristics

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first hand, some have questioned if these self-reporting methods are trustworthy. Kirby acknowledges it's not perfect, but it's the best measurement they've got.

"Although some under-reporting and over-reporting of these behaviors undoubtedly exist, these data are generally believed to be reasonably reliable and valid," writes Kirby in *No Easy Answers*.

Alternatives to Abstinence

But while these abstinence-plus programs may be effective, the thought of condom demonstrations in a 6th-grade classroom leaves many parents and educators feeling uneasy. What happens to a non-sexually active youngster who's exposed to a safer sex message? According to the research, these messages are not harmful.

While some of the abstinence-plus programs weren't effective, none of them convinced abstaining students to "begin" having sex, says Kirby. "Sexuality and HIV education curricula do not increase sexual intercourse, either by hastening the onset of intercourse, increasing the frequency of [it], or increasing the number of sexual partners," writes Kirby.

Youth Development: A Surprisingly Effective Approach

However, for those who find abstinence-plus programs unacceptable, there may be viable alternatives. The Teen Outreach Program began in Virginia in 1978 as a way to reach at-risk youth who were disengaged from school. The program invites participants to volunteer for the community service of their choice. Their service experience is supervised by a trained adult and is linked to classroom discussions about future career and relationship decisions. The initial goal was to help teens "evaluate their future options." But within a few years of the program's inception, University of Virginia researcher Joseph Allen began to detect a change in the teen pregnancy rate among participants.

"For the young people who might otherwise drift through school, this was a place where they could see themselves making a difference," says Allen. "They could establish their autonomy and competence in ways that were constructive and not destructive."

In a controlled study of 695 students in 25 schools, Allen found the participants in the Teen Outreach Program were 59 percent less likely to have become pregnant nine months later than students in the control group—a significant drop. The program had an equally dramatic effect on school suspensions and course failure rates—all without focusing specifically on sexuality, school attendance or academics.

"Several suggestions have been given for these results," says Kirby, who reviewed the Teen Outreach Program. "The participants developed ongoing relationships with caring facilitators; the supervision and alternative activities reduced the opportunity for participants to engage in problem behaviors; and the volunteer experiences encouraged youths to think about their futures."

We tell them the proud and responsible thing to do is to either use condoms or abstain from sex.

The Teen Outreach Program is also less controversial, something Joseph Allen believes has contributed to its success. "This program plays an important role for communities where sharp battle lines may already be drawn between those advocating for sex education programs with an emphasis on...birth control and those advocating for abstinence-only programs," says Allen, whose program is used in 45 schools and in 13 different states. "Community service is an approach that can be readily adopted by people with widely differing values."

They have goals and dreams and they want to do the right thing, but they don't always have the skills and confidence to do it.

But while the program has demonstrated effectiveness at preventing teen pregnancy, Allen is quick to point out that it does not address issues that prevent HIV or sexually transmitted diseases.

The same need for education exists among populations of gay and lesbian teenagers, but it is an area lacking curriculum. While Kirby believes gay and lesbian teenagers can benefit from the same safer sex message presented to all students, the unique issues they face must be addressed. "There's a tremendous need for safe-sex information in the gay population. They're at higher risk for sexually transmitted diseases and even pregnancy," says Kirby. "But most schools don't have anything for them because it's politically sensitive."

On a national level, there are signs of success. Researchers found the teenage birth rate declined steadily between 1991 and 1996 in all 50 states. Across the country, the number of teenage births fell 12 percent, from 62 births per 1000 teens to 54 births.

Along with the drop in pregnancy rates, the National Center for Health has found that condom use among sexually active teens tripled between 1980 and 1995, from 18 percent to 54 percent. Also, for the first time since the 1970s, teens are delaying sexual activity longer.

Joyce Abma, the National Center for Health's lead demographer, believes the research suggests sex education programs may finally be having an impact. "The evidence on delaying sexual activity is pretty clear cut and the evidence on contraception is significant as well," says Abma. "These programs are showing up in the data." ■

Karen Kelly is a freelance writer based in Albany, NY.

Developmentally Disabled Students Need Sex Ed, Too

Self-protection is the priority

By Karen Kelly

Sex education specialist David Hingsburger remembers what happened when a school board just outside of Toronto, proposed teaching sex education to its developmentally disabled students.

"They brought it up and the community was outraged," says Hingsburger, who helps schools in the U.S. and Canada implement such programs. "Other students have sex education and the parents of these students wanted it, too. But there was too much opposition and the idea was shelved."

As a consultant to educators who work with developmentally disabled students, Hingsburger says it's a familiar scenario. He's found society, educators, and even parents prefer to think of mentally disabled students as nonsexual beings.

"There's an assumption that's been with us for years that developmentally disabled students are either born innocent and will die innocent or they'll become sexual predators," says Hingsburger, "when in fact, neither is true. They're sexual beings, just like the rest of us. But they need to learn skills to behave appropriately."

Most in special education agree there's a serious need for these programs. It's estimated that 80 percent of developmentally disabled girls and 30-50 percent of disabled boys are sexually abused by the time they're 18. Children who are identified as developmentally disabled include those with Down's syndrome, cerebral palsy, and autism, for example. Hingsburger says the main priority is to teach these students to protect themselves. He begins with three basic concepts: modesty, an understanding of different relationships, and social distance.

"In the case of modesty, many of these children have parents and aides helping them in the bathroom. They learn how to take care of themselves but they don't learn about modesty," explains Hingsburger. "So, they pull their pants down on the playground and pee. Modesty is a prerequisite that must be taught before we get to the sex education."

It's only after students have learned appropriate social skills that information about body functioning and birth control is given, says Hingsburger. This can occur at any age, as long as an understanding of social skills is in place.

"We teach them exactly the same things that we teach other students, but we work harder to put them in context," he explains. "Otherwise, kids with developmental disabilities end up making social-sexual mistakes."

Once educators begin to address sexual issues, Hingsburger says, they often find these students ask different questions.

"I was in one class where a boy with Down's syndrome raised his hand and said he didn't need to use condoms because he was sterile. It's true that these men are less likely to father children. But he wasn't aware of the fact that some men with Down's syndrome do have children, and that condoms offer HIV protection as well," says Hingsburger. "It's really important that whoever is teaching the class has done their homework on how these illnesses effect their students' reproductive systems. That information needs to be given."

It's estimated 80 percent of developmentally disabled girls and 30-50 percent of disabled boys are sexually abused by the time they're 18.

Most programs that currently exist in schools are social skills programs, which include a sexuality component. One of the best known is an adaptation of Family Life and Sexual Health, or FLASH, for developmentally disabled students. Beth Reis, a sex educator at the King County Public Health Department in Seattle, developed the program. "The attitude of this curriculum is that the human body is precious and understandable and young people have a right to comprehensive sexuality education," says Reis.

FLASH covers topics related to AIDS, STD, and pregnancy prevention, as well as understanding how the body functions. It also gets the family involved, sending home a letter after each lesson that tells parents what was taught. The letter also suggests reinforcement skills that can be practiced at home. Reis says the curriculum was adapted to accommodate the difficulties developmentally disabled students have with conventional teaching methods.

"Much of the curriculum is taught using pictures and illustrations, as well as simple written words," says Reis. "We take it slower with these students."

One thing that is missing with the FLASH program is rigorous scientific evaluation. While it's not common among conventional sex education programs, it's virtually nonexistent among those that target students with developmental disabilities.

"They lack adequate measures, control groups, and follow-up data," writes researcher Marita McCabe in a 1997 review of these programs in *Education and Training in Mental Retardation and Developmental Disabilities*. "There needs to be greater emphasis placed on the evaluation of sex education programs and not just their development." ■

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M Whitehouse and M McCabe, "Sex Education Programs for People with Intellectual Disability: How Effective Are They?" *Education and Training in Mental Retardation and Developmental Disabilities* 23 no 9 (September 1997) 229-240

The Human Cost of Over-Reliance on Tests

By Adria Steinberg

When students maintaining a C or B average in school receive "failing" or "needs improvement" on standardized tests, many people assume they are victims of low expectations and "social promotion" in schools. By this logic, the test scores reveal truths about students that their schools could not or chose not to see. The ultimate result of ignoring these truths, according to supporters of testing "gates," is that students will graduate from high school unable to get a job or be productive members of society.

Before school systems rush to implement policies of widespread grade retention or skill remediation based on performing below a cut-off score on a standardized test, they should take a look at the research that points to the ineffectiveness and human cost of such policies. For example, in the early 1980s, New York City instituted a program that resulted in the retention of all 4th- and 7th-graders who failed to meet a cut-off score on a standardized test, even after participating in special summer classes. A study conducted for the mayor's office found that it resulted in no greater achievement gains for retained students than for their low-achieving counterparts in previous years. Worse, the dropout rate for those held back was much higher than that of similar students who had been promoted.

Emerging research also indicates that such policies jeopardize approaches that are working. For example, Protech, a long-standing and well-developed school-to-career program in Boston accepts students with a C or above average and an 85 percent attendance rate. Most students who entered the program in 1993-95, scored in the lowest 40th percentile on the MAT, the standardized reading and math test given in Boston at that time. Yet, these young people have done very well in making the transition to college and careers.

A recent study by Protech and Jobs for the Future compares a sample of Protech graduates in 1993, 1994, and 1995 to a matched local control group and to all high school graduates for those years. Protech participants show significantly higher rates of college attendance and completion. For example, 64 percent of the 1993 Protech graduates completed a postsecondary certificate or degree in the four years after high school, compared with only 44 percent of the comparison group. Overall, benefits were greatest for African-American participants. For example, 79 percent of black school-to-career graduates were enrolled in college the year after graduation, compared to only 53 percent of black students in the comparison group. And black Protech graduates who were both enrolled in college and employed earned a mean hourly wage of $8.17, compared with $6.88 for their comparison group.

Not bad outcomes for young people whose scores on standardized tests, in today's high-stakes testing environment, could keep them from graduating from high school. The Protech research is consistent with other studies that have shown that young people who develop a focus during high school are more likely to accumulate credits in college and earn a degree. Yet in many cities and states, students who do not score well on new assessment tests will not have time in their schedules to develop such a focus by entering a career pathway or undertaking a career major. Instead, they will take and retake basic skills courses until they reach the cut-off score or drop out altogether.

One of the unfortunate effects of an over-reliance on test scores is that it creates the impression that students scoring in the lowest quartiles are essentially alike and hence need the same "treatment"—usually a renewed focus on the basics. But, especially in urban areas where most students score at the low end of the scale, the scores obscure important differences in students' educational strengths and needs.

For example, standardized test scores do not differentiate between a newly mainstreamed bilingual student who rewrites each paper four or five times and meets twice a week after school with a math tutor, but who does not yet know enough academic English to decipher arcane test items, and a student whose disengagement from school and low estimation of his own academic abilities cause him to give up midway through the first section of the test and leave much of the rest blank. Would both of these students benefit from the same educational approach? Is traditional remediation what either of them needs?

Perhaps it is time to balance the public concern about the dangers of social promotion with a concern for the dangers of denying students access to the very educational opportunities that could have a major long-term impact on their ability to lead productive lives. ■

Adria Steinberg is a program director at Jobs for the Future, a national non-profit organization working to enhance economic security and access to opportunity for individuals by strengthening the transitions and linkages between learning and work. Steinberg has 30 years of experience in the field of education—as a teacher, staff and curriculum developer, writer, and, most recently, as the academic coordinator of the Rindge School of Technical Arts in Cambridge, MA. She is also a former editor of the Harvard Education Letter

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The Research Feature
This month the focus is on Successful Minority Students.

- A transcript of Janine Bempechat's HGSE Forum discussion about her new book, *Against the Odds: How At-Risk Students Exceed Expectations*.
- Carefully selected online educational links and resources, including links to sites that focus on minority achievement.

Also check out our past research features, including those on retention, science education, and co-teaching in inclusion classrooms.

...and much more!

Learning from Poor and Minority Students Who Succeed in School

Children's views on success and failure have a big impact on their learning

By Janine Bempechat

When Raymond was four years old, his family moved to the United States from Mexico. As in many immigrant families, everyone worked hard to get ahead in their new country. The children helped their mother deliver newspapers before she started her day cleaning houses. Their father worked on an assembly line during the day, at a gas station later in the afternoon, and at a pizza factory at night. And the parents still found time to encourage their children to achieve in school. "They helped the four of us get through college and graduate school," Raymond recalls, "not with monetary support, but by demonstrating persistence."

Students who work cooperatively in the classroom tend to be less worried about how smart they are relative to others and to focus on learning for its own sake.

This is one family's story of success against the odds. Raymond and his siblings successfully navigated the journey from working- to middle-class status. The unfortunate reality is that, on average, poor and minority students underachieve relative to their middle-class Caucasian peers on a variety of indices, such as GPA and SAT scores, high school completion, and college completion. What is it about Raymond, his siblings, and his parents that has enabled them to prevail where so many others falter?

Relative to the voluminous literature on the causes of school failure, there is little research on how some students succeed against the odds. Most studies have focused on understanding differences *between* groups, usually comparing middle-class Caucasian students with poor or working-class minority students. Leaving aside the appropriateness of such comparisons, one important result is that we know little about differences between high and low achievers within the same group.

Recent advances in achievement motivation theory have provided a conceptual framework for exploring the ways in which high and low achievers may differ in their approaches to learning. In particular, the focus on children's beliefs about the causes of success and failure has helped us understand why some students embrace academic challenge while others shy away from it.

Bernard Weiner's influential work at UCLA has guided much of the research in achievement motivation over the past two decades. Studying how students explain their own academic success and failure, Weiner has shown that their explanations tend to focus on three broad categories. The first is innate ability or intelligence; many students believe that those who are smart do better in school. The second is effort; many students cite trying hard as a necessary component of achievement. Third, students mention external factors, such as having been lucky enough to study the right material or being the teacher's pet. As one might expect, students tend to attribute failure to lack of ability, insufficient effort, and external factors such as bad luck. Weiner has demonstrated that, in general, those who attribute success to ability and effort tend to fare better in school than those who implicate luck or other external factors.

Just how children view ability can have important consequences for their levels of motivation. In separate studies, John Nicholls, author of *The Competitive Ethos*

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and Democratic Education, and Carol Dweck of Teachers College at Columbia University have concluded that children who view ability or intelligence as a quality that is unfixed and changeable are much more likely to tackle risky, challenging tasks and to rebound from failures by redoubling their efforts. Those who see their ability as fixed tend to choose easy assignments over challenging ones and to be less resilient about failures. (See "When Bright Kids Get Bad Grades," *Harvard Education Letter*, November/December 1992.) Furthermore, Nicholls has shown that children's beliefs about intellectual ability can shift when they are young, but tend to gel when they reach 5th or 6th grade.

How, then, do high and low achievers within a given racial or ethnic group differ in their attributions of success and failure? Are there any commonalities among high achievers in all groups? And, given the importance of family involvement in schooling, do high and low achievers report any differences in their parents' attempts to foster academic achievement?

These questions drove a recent study of achievement and motivation in students from groups ordinarily considered to be at risk for school failure —because of poverty or minority status, because their first language is not English, or because they live in single-parent homes or have mothers who did not finish high school. From 1991 to 1995, my colleagues and I surveyed more than 1,000 5th- and 6th-graders in ten public and Catholic schools. The students were African American, Latino, Indochinese, and Caucasian, all drawn from poor neighborhoods in the Boston area.

The students completed two questionnaires. The first asked about their perceptions of the reasons for success and failure in mathematics. The second asked how often their parents provided academic help and spoke about the value of schooling and its relation to their futures. To assess achievement, we also administered a 10-minute computational math test. With this information, we examined what beliefs, if any, and what kinds of parental involvement, if any, were associated with higher achievement in mathematics. Additionally, we were able to investigate whether any such relationships were the same or different for the various ethnic groups.

Although there were differences in average math scores across the groups, the higher achievers in all ethnic groups had similar beliefs about the causes of success and failure. They believed that success was due to high ability and, perhaps more important, they did not believe that failure was due to lack of ability. In contrast, regardless of ethnicity, the lower achievers believed that success was due to external factors and that failure was due to lack of ability.

For example, when students were asked why a teacher might choose them to count the money for a class trip, higher achievers in all groups were more likely to answer that it would be because they were "good in math." Lower achievers were more likely to give answers like, "It was my turn."

The higher achievers in all ethnic groups had similar beliefs about the causes of success and failure.

In addition, the study showed that when compared with their public school peers, African-American and Latino students in Catholic schools had beliefs about success and failure that were more conducive to learning. They were more likely to attribute success to ability and less likely to attribute either success or failure to external factors, such as luck or a difficult test.

Our findings also spoke clearly against the popular stereotype of poor parents as being uninvolved in their children's schooling. While there were ethnic differences in actual mathematics achievement (with Indochinese students the highest and African-American students the lowest achievers), in all ethnic groups parental involvement was perceived as higher when math achievement was lower. In other words, all children perceived their parents as concerned about their education—providing academic support by helping with homework, or providing motivational support by emphasizing the importance of education for future economic survival. There is evidence in educational research for the notion that parents tend to increase their involvement when their children are doing poorly. Simply put, it is the lower achievers who need the help.

In light of this study and other research on motivation, what can parents and schools do to promote both academic achievement and positive attitudes about learning? While there is no one path to academic excellence, these findings do point to some lessons for parents and teachers.

Self-Perception of Ability

It is healthy for children to believe they have some measure of innate ability. There is little question that parents' beliefs are critical for their children's academic self-esteem. Researchers such as Susan Holloway at the University of California, Berkeley, have shown that parents' beliefs about their children's mathematics ability have a profound influence on the children's evaluations of their own ability, their beliefs about the causes of success and failure in math, and their attitudes toward math. And several studies of successful adults from minority groups indicate that motivational support from parents—statements that stress the value of effort or of education—may be even more important for poor or minority children than whether the parents can help with homework.

In a 1987 study of Asian-American summer school students at Harvard University carried out by Herbert Ginsburg, now a professor at Teachers College, students recalled that their parents supervised their study habits, limited their extracurricular activities, and refrained from assigning them household duties so as to free up time for study. Parents frequently discussed the relationship between effort, schooling, and success in life, and they supported academic activities by providing resources such as calculators and workbooks. Interestingly, many parents did not provide specific help with homework.

Indeed, Weiner and his colleagues have found that children may interpret unsolicited help from an adult as an indication of low ability. Weiner has also shown that children as young as five can infer a teacher's beliefs about the causes

of their success or failure from the teacher's emotional reaction to their performance. A teacher who reacts angrily to failure, for example, is communicating that the student is able to do much better.

Restructure Classrooms for Learning

The ways in which teachers structure their classrooms have a critical impact on children's beliefs about the causes of success and failure. Nicholls has shown that students in traditional, competitively organized classrooms become overly concerned with how they are doing relative to their friends. This in turn makes them very anxious about mistakes and failure. They tend to become focused on whether, rather than how, they can accomplish a task. Learning becomes an exercise in attaining a desired product—the right answer. Under these circumstances, children come to see mistakes and failures as condemnations of their ability.

In contrast, students who work cooperatively in the classroom tend to be less worried about how smart they are relative to others and to focus on learning for its own sake. In cooperatively based classrooms, children are more likely to focus on how they can accomplish a task. They tend to view mistakes as necessary components of learning, and learning as a process that involves sustained effort. Under these circumstances, many children come to see mistakes and failure as opportunities to learn, no matter what they believe about their own abilities. Depending on the type of classroom structure teachers choose, they are communicating a view of success and failure to their students that can have a critical impact on children's beliefs.

Learn from Catholic Schools

Our findings suggest that ethnic minority students are at a distinct advantage when they are enrolled in Catholic schools.

The challenge for teachers is to help their students maintain a healthy balance between believing that they have the ability necessary to learn, and knowing that effort will help them maximize their ability

Relative to their public school peers, Latino students in Catholic schools believed more strongly that success is due to ability. Both Latino and African-American students in Catholic schools were much less likely than their public school peers to attribute failure to external factors such as a difficult test.

Did the Catholic school experience foster these adaptive beliefs, or did the students arrive at Catholic schools with these beliefs already in place? It is impossible to know for sure, but the growing literature on the benefits of parochial education, especially for the poorest children, suggests that aspects of pedagogy may contribute to the development of positive attitudes about academic ability. These aspects include high expectations and standards for both academic and social performance, and the belief that all children can excel in school provided that they invest effort.

This study has given us a clear glimpse into the ways in which high and low achievers think about the causes of their successes and failures in school. The most important implication for teachers in their day-to-day work is that all lower achievers, regardless of ethnicity, are at risk for believing that their poor performance results from lack of ability. This belief is potentially very debilitating, for if students do not think they have at least *some* ability, it makes little sense to them to invest effort in their learning. The challenge for teachers is to help their students maintain a healthy balance between believing that they have the ability necessary to learn, and knowing that effort will help them maximize their ability.

Janine Bempechat is assistant professor of education at Harvard Graduate School of Education. She is the author of Against the Odds.

For further information

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letter to the editor

Dear Editor:

The January-February 1999 *Harvard Education Letter* may have given an inaccurate impression of the findings of the RCCP Research Program, an ambitious two-year study of the impact of the Resolving Conflict Creatively Program on children, in which 300 teachers and 9,000 children from 15 elementary schools in New York City participated. As the article said, data analysis is not yet completed. However, findings based on year one of the study show that the program has a significant positive impact on children when they receive a substantial amount of instruction in the conflict resolution curriculum (on average 25 lessons a year). They see their social world in a less hostile way and are more likely to choose nonviolent ways to resolve conflicts. The research team at the National Center for Children in Poverty at Columbia University, under the direction of Dr. Lawrence Aber, will complete analysis of both years by June 1999.

Linda Lantieri
Director of the Resolving Conflict Creatively Program, National Center of Educators for Social Responsibility

Editor's Note: *We reported on information contained in "School Violence: Risk Prevention, Intervention, and Policy," by D. J. Flannery. This report was published in December 1997 and is available from ERIC Clearinghouse on Urban Education.*

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Preserving Kindergarten in a High-Stakes Environment

By Karen Kelly

Bonnie Walmsley remembers the kindergartners who arrived at her classroom 14 years ago. For most, it was their first experience of school. Some knew the alphabet and could count to ten. The rare student could read or write.

Today, Walmsley encounters a much wider range of abilities. Many children come in with more sophisticated skills, which she attributes partly to greater exposure to television and computers. Most have attended daycare programs. Some are 6-year-olds held back a year by parents who feared they were not mature enough for school. They share the kindergarten classroom with another population of children—5-year-olds who are still struggling to learn the alphabet and come from homes where literacy is not a priority.

"The gap has widened. There is a greater range of developmental levels now," says Walmsley, as she surveys her bustling classroom in suburban Clifton Park, NY. "I have one child who is doing multiplication and another who's still trying to identify numbers. It's become more challenging as a teacher."

At the same time, teachers in the older grades are facing the pressure of new standards. If their students are going to succeed on standardized tests, these teachers argue, they need to learn more before they get here—and that often means higher expectations for kindergartners. Many educators fear this is turning kindergarten into a pressure cooker, in which youngsters who can't keep up will be left behind. In Walmsley's words, "This is what 1st grade used to be."

Fighting the Trend

But teachers like Walmsley and organizations like the National Association for the Education of Young Children (NAEYC) are fighting this trend. They insist that the fundamental goals of kindergarten must remain the same: helping each child develop emotionally and socially, as well as academically. Good kindergarten teachers, they maintain, are ready to teach children at every level.

"The expectations for kindergarten have gone up dramatically," says Sean Walmsley, a reading professor at the State University of New York at Albany who has written several books on kindergarten with his wife Bonnie. "It's partly the result of the states raising standards in the older grades. They've started saying, 'We've got to get kids further along,' and that means starting earlier."

Deborah Meier says these changes have been detrimental to kindergartners. Meier is the director of the Mission Hill School in Boston, a pilot school modeled after the creative open-ended learning style she instituted at the Central Park East Schools in New York City. As someone who works to extend the exploratory kindergarten experience into later grades, she is discouraged by the changes in the kindergarten classroom: "It's become an imitation of someone's idea of what 1st and 2nd grade should be," she says. "It's become more skill-driven; there's more direct instruction and less play. I think it's unequivocally bad."

"It's become an imitation of someone's idea of what 1st grade should be."

Some teachers, like Jane F. Walsh of the Bowen School in Newton Center, MA, take the increased pressure with a grain of salt. "Outside influences have an effect," admits Walsh, who has heard concerns from 4th-grade teachers preparing for the state's standardized test, "but there are always some fundamental things that will remain the same. While adult needs have changed, children's needs haven't."

Walsh believes the change in the kindergarten learning environment has more to do with the better preparation of entering students than with pressure from outside. A growing number of children are coming in with previous structured learning experiences. According to the National Center for Education Statistics (NCES), the number of children entering kindergarten from formal preschool and daycare programs has increased eightfold. "Kindergarten used to be a child's first social experience," says Annmarie Rush, a consultant who accredits schools for the NAEYC. "Now, most already know how to share and take turns. Those skills, traditionally taught in kindergarten, are already intact."

But while there is no widespread evidence of change in the kindergarten curriculum, researchers like Lorrie Shepard of the University of Colorado have found indications that the pressure on kindergarten is intensifying. Shepard wrote in 1988 of a district that prescribed a certain number of minutes to be spent each day on math and reading.

That increased focus on standards has led to a rise in what Shepard calls "high-stakes testing"—the use of assessments to retain kindergartners, or to prevent children from entering kindergarten with their agemates.

Defining Readiness

Ever since the National Education Goals Panel established its first goal—"By the year 2000, all children in America will start school ready to learn"—educators have been struggling to define readiness. As is often the case, they turned to testing for help.

In many districts in the 1980s, pre-kindergarten screening tests became the basis for deciding which children were allowed into kindergarten. The tests also determined who was sent to a transitional extra-year program or a special education program. According to the National Academy of Sciences, in 1988 pre-kindergarten tests were required in at least 16 states and were in use by districts in at least 37 states.

The problem, says Samuel Meisels of the University of Michigan, is that the tests weren't good at predicting success. "No readiness tests have yet been developed that have acceptable predictive validity," Meisels has written. "Without a reasonable level of accuracy, the probability is high that

there will be false identifications, mistaken placements and inappropriate classifications."

A 1991 study in the journal *Educational Evaluation and Policy Analysis* supports Meisels's conclusion. Researchers studied four popular readiness tests and tracked children in nine Virginia school districts from kindergarten through 1st grade. They found that three of the four tests were fairly reliable in measuring a child's skills, but none was a good predictor of how students would perform the following year.

Bonnie Walmsley uses portfolios to track the progress of her kindergartners. Each portfolio contains samples of a student's work in writing and mathematics. The predictive value of portfolio assessments at this age hasn't been proven either. But Walmsley doesn't use them to make high-stakes decisions about her students; she simply relies on them to inform her and other teachers about children's progress.

Gilbert Gredler of the University of South Carolina believes that such assessments are more appropriate than high-stakes tests, but that when it comes to predicting a kindergartner's future performance, neither tests nor teachers are very reliable: "It's not the fault of the test. You're dealing with a very fluid group of children who are developmentally changing at a rapid rate, so it's difficult to predict their future success."

When it comes to predicting a kindergartner's future performance, neither tests nor teachers are very reliable.

In fact, according to "Principles and Recommendations for Early Childhood Assessments," a 1998 study conducted for the National Education Goals Panel, there is a high margin of error in any assessment of a child before age eight: "Young children learn in ways and at rates different from older children. Because young children develop and learn so fast, tests given at one point in time may not give a complete picture of learning. And because young children's achievements at any point are the result of a complex mix of their ability to learn and past learning opportunities, it is a

Age of School Entry: States Enter the Fray

By Karen Kelly

Since the early 1960s, the age at which states allow children to enroll in kindergarten has steadily climbed. In 1963, according to the Educational Research Service, 14 percent of states required kindergartners to be five on the first day of school. Today, 50 percent do so.

But it is not clear that raising the age of entry is effective in ensuring success in kindergarten. A review of the research, published in 1997 by the California Research Bureau, noted some evidence that supported this policy and some that did not. For instance, a 1997 national longitudinal survey based at the University of Rochester suggested that there are benefits to starting later. The study followed 948 children from kindergarten through 6th grade, comparing those who had birthdays after January 1 with their classmates. The younger children, especially the boys, had academic and behavior problems that lingered six years later.

But another study, published in *Developmental Psychology* that same year, compared older kindergartners with younger and older 1st-graders. Of the 539 students, "younger 1st-graders made as much progress over the school year as did older 1st-graders and made far more progress than older kindergartners. Overall, the findings demonstrated that, in itself, entrance age was not a good predictor of learning or academic risk."

Some researchers, including Sam Meisels of the University of Michigan, argue that age of entry can make a difference for disadvantaged children, who, if not enrolled in school, may not be able to attend a high-quality preschool or daycare instead. For such children, argues Meisels, waiting a year can have significant drawbacks. Postponing school, he notes, can place an economic burden on many parents and also "delays the children's entry into a rich learning environment."

Entrance age is not a good predictor of learning or academic risk.

With those students in mind, some school districts are moving in the other direction and dropping the age of entry into kindergarten. In Cambridge, MA, 4-year-olds have been welcome for about a decade. The district has the youngest cutoff date in the state—entrants must turn four by March 31 of the year they will start school. But those who become eligible in January, February, or March are required to stay in kindergarten for two years.

Regardless of the cutoff date, Meisels says, there will always be a two-year range in ability in any kindergarten class. Someone will be the youngest and someone will be the oldest. The corresponding advantages or disadvantages are still unclear.

For further information

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mistake to interpret measures of past learning as evidence of what could be learned."

Extra-Year Programs

Even with the increased influence of preschools and computers, there are always kindergartners who seem a little behind. They can't tie their shoes, sit still, or recite the letters of the alphabet, and they often don't perform well on kindergarten screening tests.

Many educators and parents argue that these children need an extra year in a program to mature. While this is a widely used tactic, the research suggests that these programs are not effective.

For instance, a 1990 statewide study done for the Virginia Department of Education found no advantage to an extra year either before or after kindergarten for 5- or 6-year-olds. In some studies, extra-year children lagged behind their promoted peers in academic, behavioral, and visual-motor measures at the end of their additional year. Lorrie Shepard, who reviewed the research on this topic in 1990, also found no evidence that extra-year programs are effective.

But teachers like Cindy Wilson of Madill Elementary School in Ogdensburg, NY, believe there is a place for transitional programs. This year, three of Wilson's 23 kindergartners spent an extra year in a developmental kindergarten program. "In this area, many children haven't been to nursery school or Head Start. This is their first exposure to school. . . . We work with them on those basics." Wilson adds that the extra-year program has eliminated the use of kindergarten retention.

Retention

While extra-year programs have not proven effective, several studies suggest that retaining young children may actually be harmful. According to the NCES, more than 5 percent of kindergartners are retained each year. In 1997, NCES researchers interviewed the parents of more than 7,000 overage children in 1st and 2nd grade—some who had entered kindergarten late and others who had been retained. They found that retained children were more likely to struggle academically in the later grades. This study echoes a large body of research that has found retention to be associated with lower achievement, poor attendance, and poor attitudes toward school.

Another common practice is holding a child out of kindergarten an extra year. An estimated 3 to 4 percent of kindergartners wait a year to start school because their parents feel they need more time to mature.

In its 1997 study, the NCES found mixed results of delayed entry. Students who had been held out of kindergarten were less likely than other children to receive negative feedback from their teachers concerning academic performance or behavior and less likely to be retained in later grades. But sitting out a year did not have a significant effect on their school performance.

Kindergarten is the most teachable of moments. You take the children when they come to school and move them as far as they're ready to go.

A Kindergarten for Everyone

"The hunters are out hunting for turkey today."

"My pt [party]."

Both these sentences were written by 5-year-olds in Bonnie Walmsley's kindergarten class. The first has perfect spelling and punctuation. The second is barely readable. But Walmsley says both students belong in her classroom. "A lot of it has to do with their family background. The kids who come from literate families aren't necessarily brighter, they're just further along in their learning." As for the students from less literate families, she says, "I have to plug into where they are and move them along. It's amazing how quickly they pick it up. They're bright, but they haven't all had the same experiences."

The 22 students in Walmsley's classroom are rarely engaged in the same activity at the same time. They work in twos and threes at stations or "learning centers" around the room. There's a math center, with jars filled with things like buttons, plastic dinosaurs, and colorful pompons. Walmsley helps one girl start a pattern with red, blue, and green poker chips and then asks her which color comes next. The girl adds a red one and continues the pattern.

Walmsley says activities like these allow children to work up to their own ability: "A lot of teachers would rather have them all working on the same worksheet. But then you're losing some and not challenging others. I try to push them individually as far they can go."

This approach reflects the "developmentally appropriate" practices called for by the NAEYC. The group has taken a leading role in advocating for a kindergarten that caters to all students, not just those from educationally rich backgrounds. "A developmentally appropriate curriculum responds to the needs of the age group you're teaching and the individual children within that. It provides them with everyday, concrete experiences to help them learn," explains Annmarie Rush. "So it's hands-on learning, rather than worksheets. This fosters their learning, growth, and development and provides them with the critical thinking skills they'll need in later grades."

Carmen Farina adopted this approach when she became principal of Public School 6 in New York City eight years ago. She eliminated the tracking system and raised the expectations for all children, not just those in the gifted program. The school is now ranked third in the city in reading proficiency.

Like Walmsley, Farina uses learning centers in her kindergarten classrooms and believes in working with each child at the child's own level and progressing from there. She says there is no better place to do that than in kindergarten: "Kindergarten is the most teachable of moments. You take the children when they come to school and move them as far as they're ready to go. It's not a pressure cooker—it's about stimulating kids and keeping them energized so they want to learn more and more."

Karen Kelly is a freelance writer based in Albany, NY.

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OWLS: Who Can Benefit from Online Writing Labs?

By Nancy Walser

How can high schoolers improve their writing skills? While the answer is old-fashioned—practice, practice, practice—one method for promoting better writing is not.

In the 1980s, high schools responded to the need to give students more writing practice by establishing centers where writing directors, teachers, and peer tutors worked one-on-one with students on assignments. But with the coming of computers, writing centers are changing. Many now have their own web pages complete with links to grammar rules, writing tips, research guidelines, and sometimes an actual person to give students feedback on their work. Online Writing Labs, or OWLS, also give students important computer skills they will need in college, where the web is commonly used for coursework.

Thomas Bateman is one teacher who believes OWLS can change the way writing is learned and taught. Director of the writing center at Calvert Hall, a private high school in Towson, MD, Bateman also teaches two sections of senior English geared to students with low SAT scores. Through the writing center, he pairs each student with a tutor to help polish a weekly essay.

But this year Bateman tried something different. He offered students the chance to earn extra credit by submitting more essays by e-mail. He was hoping students would write an additional five essays per quarter. While most wrote only two, he is encouraged: "I can see they are getting more done than they would have. The more you write, the more you will learn. Students get more practice with writing with this kind of system."

Sharing drafts through OWLS, according to Bateman, also encourages teachers and tutors to focus on "higher order concerns" of content and argument. Correcting misspellings, for example, is much more time consuming on a computer than on paper. But giving feedback on substance is simple: comments are easy to insert by pressing the "cap lock" key and typing in the appropriate places. "Lower order concerns" like spelling can be addressed by cautioning students to use the spell check before turning in the final draft. "You don't harp on the writer about all the nitty gritty," Bateman says. "All that does is discourage writing."

Bateman always makes a duplicate of a student's essay on which to make comments, leaving the original intact for the student as a reference. This system also allows teachers to save their comments in a separate file so they can spot recurring problems.

Working through the web also enables teachers to peruse OWLS at other high schools and at universities and to participate in listservs featuring e-mail conversations with distant colleagues. "There is so much communicating, you can keep trying things to find things that work," Bateman notes. OWLS don't eliminate the need for one-on-one conferences in the writing center, cautions Pamela Childers, writing center director at the McCallie School in Chattanooga, TN. High school students, she says, respond better to comments sent via e-mail after first working with a tutor face to face: "Secondary students are so needy. They run into writer's block frequently. There's a lot of body language and give-and-take that can't go on online. But you can get them started and then send them questions through e-mail later."

Sharing drafts through OWLS also encourages teachers and tutors to focus on "higher order concerns" of content and argument.

Childers estimates that about 80 to 90 percent of McCallie's 750 students use the school's OWL, now in its fourth year. In addition to posting links to resources on research, writing, and grammar, Childers has used the OWL to team-teach an interdisciplinary course called "Oceans: Past and Present." Students got their coursework and did research online, communicated through their own listserv, and produced the final project using Power Point software.

"There were students in Oceans who refused to check their e-mail, but by the end of the semester, I can assure you they all did," Childers reports. "And when they saw their semester projects on the web site, it became a reality to them." She adds, "Alumni come back and say, 'I'm so glad we had this, because when we went to college we had to get our syllabus and coursework off the computer and a lot of our classmates didn't know how to do it.'"

Besides tending to her students, Childers responds to requests from school secretaries for grammar rules, sending the answers out campus-wide by e-mail. Alums critique her OWL and ask her to read their resumes or cover letters. "When students leave here, they don't end the conversation," she says. "There's quite a family that develops."

Nancy Walser is an education writer and the author of Parent's Guide to Cambridge Public Schools.

For further information

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http://departments.colgate.edu/diw/NWCA.html

Purdue University Online Writing Lab.
http://owl.english.purdue.edu

How Many Environments Does a Child Have?

By Judith Rich Harris

The persistent focus on parents as the primary source of influence on children has left major gaps in our understanding of why children turn out the way they do. Too much emphasis has been placed on the parents and not enough on the other people in the child's life—teachers, for instance. Too much attention has been paid to the home and not enough to the child's other environments.

My book, *The Nurture Assumption*, has been widely attacked because I had the temerity to suggest that parents lack the power to shape their child's personality (See Jerome Kagan's essay, "A Parent's Influence Is Peerless," *HEL*, November/December 1998.) I supported this counter-intuitive view with evidence from anthropology, sociology, and several subfields of psychology. But what has been overlooked in the commotion surrounding my book is its positive message. If the parents' child-rearing style matters little in the long run, that doesn't mean that *nothing* matters in the long run. The conclusion I drew from my overview of a great deal of research is that people who are interested in the long-term effects of a child's environment should look not at the home, but at the world outside the home. And the most important part of that world is the school.

Here's what I said in *The Nurture Assumption*: "If, in this book, I seem to rob parents of much of their power and responsibility, I cannot be accused of perpetrating the same crime against teachers. Teachers have power and responsibility because they are in control of an entire group of children. They can influence the attitudes and behaviors of the entire group. And they exert this influence where it is likely to have long-term effects: in the world outside the home, the world where children will spend their adult lives."

An important premise of my theory is that children learn separately how to behave in their various environments—they do not assume that what works in one place will work somewhere else. That is why parents are often surprised by what they hear from their child's teacher. The differences in behavior may be subtle in a child from a "typical" home. They are most noticeable in the one whose parents belong to a different culture from the others in the neighborhood—the child of immigrant or deaf parents, for instance. Such children quickly pick up the language and culture of the world outside their home and, as they get older, leave the language and culture of their home behind.

How do children learn how to behave in the world outside the home? I believe they do it by identifying with a group of others they see as similar to themselves. Our society conveniently provides them with such a group: their classmates. In fact, all societies provide children with such a group, but in some parts of the world children associate chiefly with their agemates, in others with a group that spans a range of ages.

As educators are well aware, children's group associations influence their attitudes toward schoolwork. A study by Thomas Kindermann showed that 5th-graders who belonged to a clique of high achievers had more positive attitudes toward schoolwork than members of other cliques. No surprise here. The interesting part is what Kindermann discovered about children who switched cliques: their attitudes toward schoolwork shifted to match those of their new companions. They still had the same parents—their IQs probably hadn't changed, either—but within a single year their attitudes toward schoolwork had been revised.

Researchers have spent far too much time, with far too little to show for it, looking at the home environment.

Groups can be influenced from within or without: a talented teacher is a leader who can influence a group without being a member of it. There are teachers—for example, "Miss A," whose lasting influence on her 1st-grade students was documented by Eigil Pedersen and his colleagues in a 1978 *Harvard Educational Review* article—who can change their students' lives.

Outstanding teachers like Miss A seem to have a remarkable ability to form their students into a single group of motivated learners. One characteristic of their classrooms is the way the better students act toward the slower ones: instead of making fun of them, they cheer them on. When a poor reader shows signs of progress, the whole class celebrates.

How do these teachers work their magic? I don't know. But I'm hoping my book will inspire the kind of research that can answer such questions. Researchers have spent far too much time, with far too little to show for it, looking at the home environment. It's time they noticed that the child has a life outside the home, and other environments that, in the long run, may be more important.

Judith Rich Harris is author of The Nurture Assumption *and co-author of* The Child: Development from Birth through Adolescence.

Coming next issue...

Brain Research: What Do Educators Need to Know?

Reading Doesn't Stop in 4th Grade: High School Reading Research and Interventions

Effective High School Reading Programs

insights
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Johnny *Still* Can't Read?

Why high school students aren't developing the reading skills they need—and what some researchers suggest to solve this growing problem

By Peggy J. Farber

Each fall, Anna Lobianco, a reading specialist at Bread and Roses Integrated Arts High School in New York City, gives a reading test to the 90 incoming 9th-graders. As part of the assessment, she interviews the students about their attitudes toward reading and how they handle problems that arise while reading.

"I get the exact same responses from kids every year," says Lobianco. "They hate reading. It's just a labor." Of the students Lobianco screens, almost one-third are identified for inclusion in her remedial reading class.

"A question I always ask kids is what do you do when you come to a word you don't know," she continues. "They all say the same thing: 'I look it up in the dictionary.' They don't have any [other] strategies for reading. They don't have the 'skip it, try to figure it out and come back to it later' type strategies."

Lobianco's observations are echoed by results of the 1998 National Assessment of Educational Progress (NAEP) in reading, released in March by the U.S. Department of Education. The new survey shows that although virtually all adolescents are able to carry out simple reading tasks, only 40 percent can read well enough to comfortably manage standard high school texts.

Only 6 percent of American 17-year-olds read at what NAEP designers deem an advanced level—that is, can synthesize and learn from specialized reading material. That age group is the only one showing lower scores today than when the NAEP was first given in 1971, which begs the question, Why are the reading skills of older students not showing more improvement?

While the nation has concentrated much needed attention on beginning readers, efforts to help high school students are lagging. Fewer high schools today have reading support staff—like Lobianco—than at any time in the past to instruct students in advanced reading processes. In fact, experts say that secondary teachers should just assume that most of their students cannot read at grade level. In practical terms, they say, this means that high school teachers will have to train students in reading at the same time they teach content.

A new survey shows only 40 percent of adolescents read well enough to comfortably manage standard high school texts.

That challenge is especially formidable considering the fact that high schoolers with reading problems may have gotten sidetracked at different stages in their development. According to Catherine Snow, professor at the Harvard Graduate School of Education, some older students struggle because they failed to learn fundamentals of reading in the primary grades, whereas others were competent readers early on but never progressed in fluency and comprehension sufficiently to read the texts encountered after 4th grade.

Still others developed reading skills up to, say, a 6th- or 8th-grade level, but haven't actually read enough to develop the vocabulary or general knowledge that more advanced reading requires. Although most high schoolers may be able to read the words on the page, many do not have the skills that allow them to synthesize or summarize information, draw conclusions, make generalizations, or relate information drawn from texts to their own knowledge.

Secondary school students are expected to learn independently from print, but no one shows them how, says Arlene Barry, an assistant professor of curriculum and instruction at the University of Kansas. "We start to

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work with kids on stories from the time they're infants. We read stories to them, and they know the pattern: there's going to be an ending and a resolution. The kind of texts kids are reading at higher levels—the informational, technical texts—there are patterns in them, too, but the kids are not aware of that and nobody walks them through it."

Common Mistakes

Mature readers might find it perplexing that adolescents fail to stop reading and take stock when they become confused, but reading specialists report that this is one of the most common mistakes young adults make. "Teachers don't realize that kids can read something and say the words okay, but not understand what they've read—and not even know they don't understand," Barry says.

In secondary school, teaching shifts from the process of learning to the content students should learn, leaving teachers with little time to address reading. Even teachers who know how to teach reading in their content areas rarely do so. Thirty-seven states require secondary school teachers to take at least one course in reading, yet studies show that only a small percentage of teachers actually use the strategies they learn. And recent state trends are making it tougher for teachers to stray from content instruction. Thirteen states have recently instituted exit exams that require students to meet high standards that emphasize content knowledge, and more states are in the process of rolling out such exams.

"Teaching adolescent literacy is not supported from the top down," says Richard Vacca, former president of the International Reading Association and co-author of a respected textbook on secondary school reading. "The only thing that's important is a score on a state proficiency test, and that's content driven."

Harvard lecturer Vicki Jacobs says secondary school teachers who neglect to address literacy explicitly may be adding to the problem by sending students an inaccurate message about how mature reading works. "If I say to students, 'Go home and read a book chapter and come back tomorrow and I'll give you a quiz,'" says Jacobs, "then I'm implying that good reading is like a fairy landing on your shoulder and you just get it. I'm not showing you how to tangle with the text, how to construct meaning."

Reading experts say another factor is the public's misperceptions about literacy. Across the states, governors and legislatures pour public resources into intervention programs for young children and fail to fund any literacy programs for secondary students. Their mistake: assuming that reading develops automatically once a child masters the fundamentals.

"We're seduced by this notion that if we could just teach the basics by 4th grade, kids would be able to handle the complex demands of literacy that are required of middle and high school students, and that's just not going to happen."

Governors and legislatures pour public resources into intervention programs for young children and fail to fund any literacy programs for secondary students.

Richard Vacca says. "We have 30 years of statistics that show the problem isn't only with beginning literacy, yet we front load everything and then the funding just stops."

Thinking About Thinking

There is a considerable body of experimental research demonstrating that when adolescent students are shown how to monitor their own thinking, they are able to get more from their texts and to perform more complicated operations with the information. Thinking about thinking—or metacognition—is a hallmark of early adolescent development and the backbone of adolescent reading experiments. Several experimental regimens train students to think while they read. However, little work has been done to move these protocols out of laboratories and into secondary classrooms.

One model that has been tried in classrooms and is favored by several reading experts is reciprocal teaching. Developed in the early 1980s by researchers Ann Brown and Annemarie Palincsar, this approach has content-area teachers engage students in a dialogue (thus, reciprocal) that employs four thinking strategies: generating questions based on what the students already know, predicting what is about to happen in the text, summarizing what students have just read, and stopping to clarify when students hit confusing material.

Another effort gets teachers themselves to think about how they read and then try to pass those skills on to kids. Cynthia Greenleaf, director of research at the San Francisco-based WestEd's Strategic Literacy Initiative, and her colleague, Ruth Schoenbach, are collaborating with secondary school teachers to bring insights from cognitive research into classrooms. Greenleaf says the first step in her work with high school teachers is always to get them to recognize what they do when they read.

"We have groups of social studies teachers sit together and read a history analysis, and chemistry teachers read a Scientific American article," Greenleaf says. "And we have them list their reading moves—what they pay attention to." Inevitably, teachers discover that advanced reading in one discipline is nothing like it is in another. Teachers need to uncover such hidden, or veiled, processes and make them apparent to students, says Greenleaf. "We need to try to figure out ways of helping our kids into that masked world of how you do literary readings, science readings, historical readings," she says.

Next Greenleaf and Schoenbach introduce teachers to research-based techniques such as reciprocal teaching that help students expand their repertoire of thinking strategies and develop flexibility in using them. They also urge teachers to make use of the developmental strengths of adolescents.

At Thurgood Marshall Academic High School in San Francisco, Greenleaf and Schoenbach developed a mandatory literacy course for all incoming 9th-graders in 1996 that emphasizes adolescents' emerging abilities to think about thinking and to be retrospective about themselves. In the first unit, "Reading Self and Society," students explore their own "reading identities," including their histories as readers and what kind of problems they have experienced, as well as what kind of role reading will likely play in their intended

career goals.

During the course, which met for two 90-minute block periods and one 50-minute period per week, students also read narratives from authors such as Malcolm X, Claude Brown, Frederick Douglass, and others. They read silently in class for 20 to 25 minutes each block period, kept logs describing the reading problems they encountered, and got explicit instruction in self-help cognitive strategies, such as predicting, questioning, and clarifying.

At the end of the 1996-97 academic year, students showed significant gains in reading achievement, moving from the 47th to the 50th percentile in national ranking. Furthermore, when the same students were tested again at the end of 10th grade, a year after the course had ended, their gains not only held but even accelerated. By the spring of 1998 the group had gained approximately four years' reading ability in two academic years.

More significantly, perhaps, is that students' perceptions about reading, as measured by open-ended surveys conducted at the beginning and end of the year, changed dramatically. More students reported that they liked reading, that they purposefully decided which books to read, had favorite authors, and understood what they read.

Explaining the results of her work with the San Francisco 9th-grade teachers, Greenleaf voices a complaint heard repeatedly in conversations with literacy experts. "This is exactly why we need to do the work at the secondary level," she says, "why we can't just say, 'Oh, the kids got it in K through 3, they know how to decode and they know how to approach words that are unfamiliar, and how to chunk text and read fluently.' That is not enough." ■

Peggy J. Farber is a freelance education reporter based in New York City.

"Nothing Makes a Kid Feel Better than Learning": Reading Success at Boys Town

By Peggy J. Farber

At Father Flanagan's Boys Town in Nebraska, Mary Curtis, director of the Boys Town Reading Center, teaches high school students who are at severe emotional and social risk. Many of her students, about 60 percent of whom are male, have lived through years of chronic neglect or abuse; Boys Town is typically their third out-of-home placement. A great many of the young adults have a history of academic failure and arrive reading two to six years below grade level. Curtis is urgent when she says, "We can't afford to have them fail again."

In response, Curtis has developed a secondary school reading curriculum that is showing significant promise for adolescents struggling with basic reading processes. The students in her program gain about two years for every year of instruction, and the results have been replicated in several dozen secondary classrooms around the country. The Boys Town Reading Curriculum is currently being used in 30 different school systems.

Curtis bases her program on two complementary ideas. First, students pass through distinct stages of development, starting with attempts to associate letters with sounds and going through efforts to construct knowledge from texts. Second, teachers working with at-risk adolescents must work quickly, focusing only on those skills that are necessary to move students to their next stage of development, because "they'll never catch up if we don't," she says.

Diagnosing the student's level of development is the crucial first step, says Curtis. "Getting kids in the right kind of intervention is critical," she says. At Boys Town, Curtis is able to test every student who comes in, but many of the teachers she works with make do with informal assessments by just listening to kids read and talking to them. "Very often you'll get kids who will tell you what's wrong. 'Well, I can identify the words but it just takes me so long,' they'll say. That's one of the joys of working with the older adolescent," Curtis says.

Students in her program gain about two years for every year of instruction.

The Boys Town curriculum is divided into four semester-length courses. "Foundations of Reading" is for young adults below the 4th-grade level who are struggling with the mechanics of reading. "Adventures in Reading," for students at the 4th- and 5th-grade level, focuses on students' ability to quickly recognize words and their meaning. In "Mastery of Meaning," teens reading between the 6th- and 8th-grade level work on improving their knowledge of vocabulary. In "Explorations," students above 8th-grade level work on integrating information found in texts.

The keys to the program's success are its highly structured courses, predictable routines, and ability grouping, says Curtis. "The argument against homogeneous grouping is that the kids will feel bad [if they aren't in the top group], but nothing makes a kid feel better than learning," Curtis says. "And the fastest way to show them that they are capable of learning is to get them in these groups and teach them something in the first five minutes that you're with them. Teachers say to me, 'How do you motivate these kids?' You teach them!" ■

For Further Information

Boys Town Reading Center, Father Flanagan's Boys' Home, Boys Town, Nebraska 68010; 402-498-1155.

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Project WebSIGHT provides a practical introduction to reciprocal teaching, and includes sample lessons and research results. The site was created by the Miami-Dade County Public Schools, the University of Miami, and the Florida Department of Education. **www.miamisci.org/tec/index.html.**

The Strategic Literacy Initiative, WestEd, 730 Harrison Street, San Francisco, CA 94107; 415-565-3000; **www.wested.org/stratlit**; send e-mail to Ruth Schoenbach at rschoen@wested.org or Cynthia Greenleaf at cgreen@wested.org.

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What Secondary Teachers Can Do To Teach Reading

A three-step strategy for helping students delve deeper into texts

By Vicki A. Jacobs

You want me to teach reading? But I'm a content teacher. I don't have time to stop and teach reading. Besides, I wouldn't even know how to begin.

These are typical concerns of secondary teachers when asked to take more responsibility for their students' reading. One reason for their concern may be confusion about what secondary reading is.

Simply put, if reading through grades 3 or 4 is about learning to read—acquiring the skills needed to decode the written word automatically and fluently—then reading from about grade 4 on is about using those skills to comprehend what is written—that is, using reading to learn. Texts used in subject areas often employ language, syntax, vocabulary, and concepts that are specific to a particular field of study. Merely assigning reading does not help students learn how to tangle with these specialized texts to construct meaning: teachers must help prepare students for and guide them through the texts so that they will learn from them most effectively.

Pre-Reading

To avoid feeling that they have to stop teaching content in order to teach reading, secondary teachers might think of reading as a comprehension or understanding process that involves three stages. (These stages are derived from a model of learning called "schema theory.") The first stage is called *pre-reading*. One of the purposes of pre-reading is to acknowledge the different contexts, experiences, biases, and background knowledge (often called the "given") of students that will influence how they read and learn from a text (the "new"). By knowing what students bring to their reading, teachers can provide them with bridges, or scaffolds, between the given and the new—clarifying unfamiliar vocabulary and concepts, and offering other necessary information in the process. Pre-reading activities also promote students' engagement and interest by providing them with means to preview and anticipate the text. Such preparatory activity is critical for comprehension to occur.

For example, a 9th-grade social studies class may be planning to read about Moscow as an introduction to a unit on Russia. Depending on the purpose of the reading (and it is important to be explicit to students about purposes), the teacher might have students brainstorm individually about what they already know about a national capital that is more familiar to them: Washington, DC. Most likely, the brainstorm will spark both common associations (such as the president, the Capitol, cherry blossoms, or Arlington National Cemetery), as well as less common associations certain students might have because of their own knowledge and experience (say, the Holocaust Museum, or an anecdote about a visit to Washington, DC). The class could then compile and share their brainstorms, which the teacher can use to help the students grasp particular concepts or vocabulary that will be important to understanding the text.

Pre-reading requires considerable time but is a wise and critical investment.

The class might then organize their brainstorms into categories (such as monuments, government buildings, a tourist's view of the city), or into webs, outlines, or clusters—graphic organizers that visually illustrate the relationships among vocabulary or concepts. The teacher could then divide the class into small groups and assign each group a category from the brainstorm, asking them to use the Washington, DC, examples as a way to think about Moscow. For example, a group that is assigned "a tourist's view of the city" might consider whether there are gardens in Moscow that equal the beauty of cherry blossoms or whether there is a national cemetery near Moscow as there is near Washington, DC. They might also consider the monuments or government buildings that a tourist would be interested in seeing. As a result, the students build on the knowledge they bring to a text while beginning to anticipate and pose questions about that text.

In addition to brainstorming and graphically organizing information, teachers can also instruct students to ask and answer questions before reading. These questions, which can be supplied by the teacher or developed by students through directed writing or interactive discussion, might include, "What do I already know and what do I need to know before reading?" and "What do I think this passage will be about, given the headings, graphs, or pictures?" Teachers can also make use of cloze—that is, deleting important words or concepts from a passage and having students guess or choose the word that would best fit the blank. Pre-reading activity requires considerable time, but that time is a wise and critical investment, for it prepares students to actively engage with the text.

Guided Reading

The second stage of the reading process is called *guided reading*. During this stage, students need structured means to integrate the knowledge and information that they bring to the text with the "new" that is provided by the text. Guided-reading activities should engage students in probing the text beyond its literal meaning for deeper understanding. They should include multiple points of view, which is a requirement of higher stages of reading. Students should have the opportunity to revise their preliminary questions, search for tentative answers, gather, organize, analyze, and synthesize evidence, and begin to make generalizations or assertions about their new understanding.

A simple way to lead students beyond surface understanding is to reword the factual questions that texts characteristically provide at the end of a chapter into questions that ask "how" or "why." Such questions ask students not only to locate information, but

also to apply that information in some substantive way. For example, a social studies text might ask, "What three rivers that flow through Russia are connected by canals?" Only surface comprehension is required for students to find and copy the answer from the text (the Don, Dneiper, and Volga Rivers). In contrast, a guided-reading question, such as "How would Russia's transportation and trade be affected if there were no canals to link the Don, Dneiper, and Volga rivers?" requires students to consider how facts from the text inform each other and help answer the question. Other common guided-reading activities include reader-response journals and study guides.

Post-Reading

Stage three of the secondary reading process is called *post-reading*. During this stage, teachers give students ways to articulate their understanding of what they have read, and then to test its validity, apply it to a novel situation, or argue it against an opposing assertion. For example, students might be asked to discuss how the United States and Russia are similar and different, given one aspect of Russian culture that they have studied (e.g., the people, geography, industry, or transportation). They then might be asked to argue what impact these similarities and differences might have when Russia and the United States need to come to some agreement of international consequence, such as the war in Kosovo.

By engaging students in pre-, guided-, and post-reading activities, teachers not only support students' understanding of content, but also provide them with opportunities to hone their comprehension, vocabulary, and study skills without interrupting content learning. Teachers should make decisions about how they will use such activities, depending on their purposes for teaching, the difficulty of the text, and how well their students can read the text. Most teachers already employ many of the principles and practices associated with the reading process. However, by becoming more aware of how they use them and to what end, teachers can become more confident about whether students comprehend both the word and the spirit of their texts. ■

Vicki A. Jacobs is a lecturer on education and associate director of Teacher Education Programs at the Harvard Graduate School of Education. This article draws from her book, Secondary Reading and Writing: Issues and Opportunities, *which will be published by Brookline Books later this year.*

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The "Brain-Based" Ballyhoo

New research on the brain may shed light on how kids learn, but should it change the way they're taught? The debate simmers...

By Millicent Lawton

When Sarah Jerome, a Wisconsin school superintendent, and her colleagues read about a brain-research study connecting keyboard music lessons to improved skills in spatial and abstract reasoning in preschoolers, they didn't wax philosophic about the potential benefits of such research. They put the new information into practice—and fast.

In 1996-97, Jerome and company added keyboard lessons to the elementary music curriculum in the 4,200-student Kettle Moraine school district in Wales, WI. When kindergartners showed better puzzle-solving and block-building skills, Jerome plowed about $40,000—most of it donated—into buying 120 electronic keyboards for all grade levels in the district's four elementary schools. Today, teachers say the students who take keyboard lessons have better concentration and discipline in the classroom.

Are Jerome and others like her reading too much into early results from brain research, a science still in its infancy? "I'd be reluctant to invest substantial resources in a curriculum based on a single study," says John Bruer, president of the James S. McDonnell Foundation in St. Louis, which funds research in neuroscience and psychology.

Such reactions highlight the current tug-of-war over so-called "brain-based education," a pedagogical bandwagon set in motion by recent advances in brain science and the media hype surrounding them. Proponents—by and large consultants, not brain scientists—argue that research about the brain can help K-12 educators know what and how to teach. But critics, mostly in the scientific community, question the accuracy of some of the movement's claims and argue that the "breakthroughs" it touts are little more than longstanding educational philosophy and common sense repackaged under a new, faddish name. As in many debates, the truth probably lies somewhere in the middle.

Are Jerome and others reading too much into early results from brain research, a science still in its infancy?

One supporter of brain-based education, Eric Jensen, says learning about the brain can help educators make better decisions. Jensen, a staff developer and author of *Teaching with the Brain in Mind*, says he doesn't want brain biology to drive school policy and practice exclusively. Still, he says, "there are a lot of important findings in the field of neuroscience that have some direct classroom applications." Educational consultant David A. Souza, author of *How the Brain Learns*, agrees: "Teachers are trying to change human brains every day. The more they know about how [the brain] works, the more likely they are to be successful."

The secret, according to brain-based advocates, is in making the right connections between new laboratory research and classroom practice. Education consultants Renate and Geoffrey Caine,

authors of several books on using brain research in teaching and learning, say that neuroscience can be a powerful tool for educators "when correlated with work from other domains."

In their work, the Caines attempt "to develop a set of principles that make sense to educators" and can be put to use right away in the classroom. They have come up with a dozen "brain/mind learning principles" that educators can use as guidelines for classroom instruction. They arrived at one such principle—that "complex learning is enhanced by challenge and inhibited by threat"—by blending research from neuroscience, stress theory, anxiety research, creativity, peak performance, self-efficacy, and sports psychology.

Critics, mostly neuroscientists themselves, worry that brain-based advocates raise false hopes among a lay audience—expectations that research may not be able to support. Neuroscience, they say, is a relatively new discipline, and cannot necessarily tell parents or teachers how to enhance the intellectual and cognitive development of children—at least not yet.

"I think it's inexcusable that scientists and educators in pursuit of their own policy agendas have allowed this to happen," says Bruer. "There's a whole industry of brain-based education based on no research at all." It's particularly a shame, he says, for public school districts to spend their limited dollars on materials or professional development that may be "based on science fiction."

"The fact of the matter is, there are a lot of important findings in the field of neuroscience that have some direct classroom applications."

Bruer and others particularly object to what he says is the sloppy use of neurobiological vocabulary by some brain-based education advocates. For instance, the term "critical period" is used by such advocates to refer to a point in development in which a child must learn something—a now-or-never, use-it-or-lose it perspective. But the term has a different meaning in neuroscience: it refers to a timeframe that begins and ends abruptly and beyond which a phenomenon will not appear. In the latter context, "critical period" might be used to explain the development of vision in an infant, but not something like learning to read.

That's not to say that brain-based educators don't have good intentions. Even Bruer acknowledges that writings on the subject often contain "a lot of [what] reform-minded, progressive educators would be sympathetic to—cooperative learning, group learning—[which are all ways to] overcome the factory model of education. All of those things are reasonable and commendable goals." But the evidence for most of those interventions, says Bruer, comes from behavioral psychology and not from the study of brain anatomy and chemistry.

Some proponents, like Jensen, will concede that point: "If somebody pushing cooperative learning wants to make it seem more up-to-date [by citing brain research], I think that's a bunch of baloney," says Jensen. But, he says, practitioners also shouldn't be expected to wait for all the evidence to come in before putting new research to work in the classroom. "If we waited until we knew absolutely for sure, it would be 30 years. That is unfair to millions of kids."

Some researchers acknowledge that

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Breakfast for the Brain

By Millicent Lawton

What's best for breakfast? Pancakes? Cereal? A big plate of spaghetti? Brain research may help us decide. New research by psychologist Paul Gold of Binghamton (NY) University looks at the effect of glucose, or sugar, on the brain. His conclusion: consuming glucose can enhance cognitive functions, including learning and memory.

Traditional entreaties to eat breakfast before school were based on general health and nutrition principles, but Gold's research links brain chemistry and memory formation to blood glucose levels. It departs from the long-held view that the brain always has all the glucose it needs, except under conditions of starvation. Gold contends that thinking actually depletes sugar in the brain.

According to Gold, his experiments with rats have shown that high cognitive demand (learning) may activate specific brain areas needed to work on a task, thereby depleting the supply of glucose in that part of the brain. When rats consume glucose, their cognitive abilities are replenished. "The evidence that glucose improves memory and cognitive function is very solid," he says.

Gold says those results translate to humans as well. So far they have with senior citizens and college students, but not with children. In one study, Gold and his colleagues tried to see if middle schoolers' cognitive functions would improve with a late-morning snack of lemonade with glucose. The students' performance did not improve, and the researchers are still trying to figure out why. One guess is that the breakfast the children ate before coming to school improved cognitive function enough that there was no room for further improvement. Another is that the fat in the milk children may have put on their breakfast cereal at home could have suppressed the glucose effect.

Still, his work got him an invitation to present his findings to officials at the U.S. Department of Agriculture in Washington, who are studying whether school breakfast programs should be expanded. As for what breakfast foods are best for the brain, researchers are unsure—though Gold thinks that pasta, packed with carbohydrates, may someday be the breakfast of academic champions. ■

BEST COPY AVAILABLE

there are, in fact, empirical findings from brain studies that improve our understanding of learning and development. For instance, studies show that children's brains exhibit major changes in activity at certain ages, according to Kurt Fischer, professor of human development and psychology at the Harvard Graduate School of Education. Fischer says studies indicate that such changes are clustered at several different ages from birth to age 30, including around age 4, ages 6 to 7, 10 to 11, and 15 to 16.

During those times, the children themselves show rapid increases in skills and mental capacities. At each stage, a cycle of growth takes place in the cortex of the brain, systematically improving connections. It's as if the brain is upgrading its office computer system, except that rather than replace old computers with all new ones, it builds upon the old connections and integrates them into the new system.

Such findings indicate that there's a limit to the complexity of skills a child can handle at each stage of development, says Fischer. The trick for teachers, he says, is to present material in a way that targets more than one level of understanding. "What you need is an emotionally supportive, interesting environment where there are new things introduced regularly," he says.

This research also suggests that the brain, as it develops, can revisit information or tasks that previously seemed too difficult, says Fischer. In other words, even if children miss something the first time around, they might still master it later on. Fischer points to studies of adult dyslexics who struggled to read in elementary school but eventually learned to do so as adolescents.

Sarah Jerome, the Wisconsin superintendent, says she has faith that K-12 educators can sort out claims about brain-based education by asking themselves, Does this make sense with what I know to be reality about how children learn? "I think we are all trying to create an educated populace," she says, "and we ought to be holding hands in this effort and not criticizing each other for doing something too fast or too slow, but in the best way possible." ■

Millicent Lawton, formerly a reporter for Education Week, *is a freelance journalist based in Wellesley, MA.*

Segregation: Stepping Back in Time?

By David T. Gordon

Forty-five years after the U.S. Supreme Court outlawed racial segregation in schools in *Brown v. Board of Education*, the U.S. public education system is again becoming segregated, this time by both race and class, according to a new report by Harvard Graduate School of Education researchers. Such trends may threaten equal opportunities in education for American minority students, the report says.

In *Resegregation in American Schools*, authors Gary Orfield and John T. Yun of the Civil Rights Project at Harvard contend that typical black and Latino students have less opportunity to interact with white students than at any time in the past three decades. In 1996-97, 68.8 percent of blacks and 74.8 percent of Latinos attended schools with mostly minority students. More than one-third of all black and Latino students went to schools with a minority population of at least 90 percent.

Minority students are increasingly isolated by economic class as well as race, according to the study. Average black and Latino students go to schools where 42.7 and 46 percent of students are poor, respectively. A typical white student attends school where only 18.1 percent of students are poor. "Segregated African American and Latino schools are many times more likely than white schools to face concentrated poverty, which is powerfully related to lower educational results," the authors write.

The Northeast is the country's most segregated region, with 46 percent of Latinos and 50.5 percent of blacks attending schools that are 90 percent minority. In the South—which aggressively promoted integration in the 1970s and 1980s—the percentage of black students in mostly white schools fell from a peak of 43.5 percent in 1988 to 34.7 percent in 1996.

Changing demographics—not necessarily racism—are driving resegregation, the study says. Waves of immigration have increased the number of minority public school students, especially in suburban areas. For instance, the Latino population in public schools has tripled since the 1960s, while the number of whites in public schools has declined almost six percent.

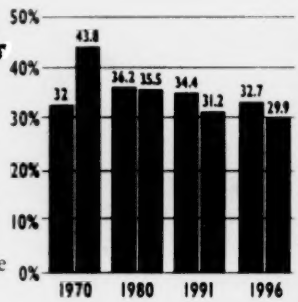
Federal and state courts also have contributed to the isolation of minority students by chipping away at desegregation measures, and Washington needs to do more to safeguard equal opportunity in education for minority students, the report says: "Although the Clinton administration has seen the largest increases in segregation in the last half century, it has proposed no policies to offset the trend and has not included the issue among its priorities for public education."

Not everyone sees federal intervention as a likely answer, however, especially given a rash of court cases in the past few years striking down race-based school assignments. "If you're the government, what do you do?" asks Alfred A. Lindseth, an Atlanta lawyer who has worked on several cases involving school desegregation. "To bring about increased educational integration would involve instituting federal guidelines that would probably be illegal under current law. So [the government would] probably want to look first at other ways of increasing educational opportunities for minorities—like doing a better job of distributing funds." ■

Resegregation in American Schools, *issued in June, is available online at* ***www.law.harvard.edu/civilrights/publications/resegregation99.html***.

COLOR LINES

Black and Latino students are going to school with fewer whites than at any time in the last three decades.



Percentage of whites in schools attended by typical
Black students ■
Latino students ■

Source: U.S. Department of Education Office for Civil Rights. Cited in *Resegregation in American Schools*.

What Teachers Know and Don't Know Matters

By Dennis Sparks

While the old adage "What you don't know can't hurt you" may sometimes be true, ignorance is not bliss, especially when it comes to educating this nation's students. A recent survey of more than 4,000 teachers by the U.S. Department of Education found that most teachers have limited preparation in the academic content we want our young people to know. The study indicates that only 38 percent of all teachers have an undergraduate or graduate major in an academic field, and just 22 percent of elementary school teachers have degrees in an academic field. While states are beginning to raise licensing requirements and introduce more rigorous testing for new teachers, these measures will have little effect on raising the level of skills and knowledge of the more than three million teachers already in the classroom.

What other major industry involved in well-publicized global competition—as America's schools are—would not invest in retraining its employees?

To complicate the problem, today's teachers face a tougher assignment than educators from previous generations. They must raise student performance for a more diverse and disadvantaged student population than ever before. And they must meet tougher national standards while introducing new technologies and mainstreaming special education students.

This situation demands that teachers be learners throughout their careers. What other major U.S. industry involved in well-publicized global competition—as America's K-12 schools are today—would not invest generously in the continuous retraining of its employees? Unfortunately, both educators and the public have ambivalent feelings about teachers themselves becoming learners. While recognizing the importance of high-quality teaching, both groups are concerned that staff development detracts from valuable classroom time and doubt that investment in teacher learning yields improvements in student learning.

This skepticism may explain why so few teachers have had the professional learning opportunities they need. Only 20 percent of teachers in the U.S. Department of Education survey said they were confident in using new technologies or working with students from diverse backgrounds, with limited proficiency in English, or with disabilities. The survey also found that only 19 percent of respondents had been formally mentored by another teacher. Two-thirds had never participated in a formal induction program when they first began teaching.

In the past, such skepticism about staff development may have been justified. New research on teacher development, however, indicates that students, not just teachers, benefit from well-designed staff development programs. For instance, David Cohen of the University of Michigan found that California teachers who participated in sustained professional development based on mathematics curriculum standards were more likely to use reform-oriented teaching practices and have students who achieved at higher levels on the state mathematics test.

In addition, 13 schools or school systems have been recognized in the past two years by the U.S. Department of Education for the link between their staff development efforts and student learning. Furthermore, the National Staff Development Council has identified 26 staff development programs in its recent report, "What Works in the Middle: Results-Based Staff Development," which improve the learning of middle-level students in the core academic areas.

Staff development programs work best when designed to deepen teachers' knowledge of the content they teach and expand their repertoire of research-based instructional skills. These programs provide ongoing classroom assistance in implementing these new skills, create regular opportunities for serious collaborative work, develop teachers' classroom assessment skills, and connect teachers to other professionals within and beyond their schools.

The potential of any educational improvement program will be wasted unless teachers have the training, follow-up, time, and other forms of support they need to implement them. While many school districts are beginning to recognize that they must do all they can to hire, retain, and appropriately assign outstanding teachers, they also must involve all teachers in continuous, intellectually rigorous study of the content they teach and the ways they teach it.

The public needs to support quality staff development. Efforts to expand teachers' knowledge and skills will pay off for students if staff development is tied to clear and high standards for student learning and if every teacher is given ample time to learn, absorb, and implement the new techniques and technologies. Only then can we create a teaching force that is prepared to teach in tomorrow's classrooms. ■

Dennis Sparks is executive director of the National Staff Development Council, an 8,000-member professional organization based in Oxford, OH.

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HARVARD EDUCATION LETTER

Rising to the Discipline Challenge

Amidst growing concern about bad student behavior, practitioners and researchers point to some tried and true ways to keep order in the classroom

By David T. Gordon

When results of the 31st Phi Delta Kappa /Gallup Poll on attitudes toward public schools were released in August, discipline was again the country's top educational concern, as it has been in all but one of the last 14 surveys. Of the 1,103 adults polled, 18 percent said "lack of discipline" was the biggest problem facing public schools. Fighting, violence, and gangs claimed second place (11 percent), while issues like lack of financing (9 percent), crowded schools (8 percent), and low standards (2 percent) fell into the background. Less than a quarter of those polled thought schools were "very safe and orderly."

The topic of discipline cuts a wide swath across today's most important educational debates. Conservatives and liberals (and all those in between) may argue about policies and methods, but everyone seems to agree that better discipline is needed in our schools. Tragedies like those in Littleton, CO, make the issue seem more urgent. Teachers' unions ask for stricter disciplinary codes. President Bill Clinton, in his 1999 State of the Union Speech, urges "all states and school districts [to] adopt and implement sensible discipline policies." Advocates of charter schools and character education promise programs with better discipline and, as a result, better learning.

A new survey found that 43 percent of public school students said the behavior of other students interferes with their school performance.

Are today's students in fact less disciplined than earlier generations? Without any comprehensive system of statistical reporting on disciplinary matters, it's hard to say. Students seem to think so. In a new national survey of 1,200 teenagers by the Horatio Alger Association, 43 percent of public school students said the behavior of other students interferes with their school performance; more than half of African American students said the same. Only 44 percent of all students "always feel safe" in school, and nearly one in five said school rules are too lax. Such reports are especially jarring when considered in the context of a 1998 study by the Educational Testing Service that linked discipline problems to poor academic performance.

Under increasing pressure to raise test scores and challenged by a host of reform programs, public school administrators are looking for ways to improve discipline. Recommendations tend to stretch along a spectrum from what are commonly called "autocratic" measures to "democratic" ones. Supporters of the autocratic approach advocate strict, clearly delineated disciplinary codes and enforcement—a list of dos and don'ts and the penalties for disobedience. Those who favor the democratic approach suggest that children will behave if teachers give them more positive reinforcement and decisionmaking authority, and offer them more engaging curricula.

These days most researchers, administrators, and teachers find themselves somewhere in the middle. Yes, they say, discipline is important and needs to be improved. No, they say, the tactics of "the good old days" were not necessarily healthy or effective. Regardless of whether they identify their approach as autocratic, democratic, or neither, some common themes emerge on how best to create more orderly schools.

Get students involved

Research shows that students who feel they have a stake in their schools will work to make them better. This means giving students a voice in how things are done and how problems are solved. Talking with students about ways to improve a school atmosphere rather than assuming an adversarial relationship between students and schools is key. There's an important lesson in that approach, too. If

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schools demonstrate that not all problems need to be solved from the top down, students can learn important skills of conflict resolution that will serve them throughout their lives.

For more than a decade, Willis J. Furtwengler of Wichita (KS) State University has experimented with an intervention program he developed called Reaching Success through Involvement (RSI). In a dozen schools across the Midwest, Furtwengler has led three-day retreats for student representatives of various school groups—"the jocks and the burnouts," as he puts it—as well as administrators and teachers. In workshops and seminars, he gets them to brainstorm about ways to achieve common educational purposes and to create more supportive classroom settings that respect generational or cultural differences.

A 1996 survey of 17 schools—both urban and rural—that employed RSI showed that school discipline improved every one. Key indicators included fewer suspensions, less tardiness, better daily attendance, and fewer students assigned to detention. "The contribution of student leaders was invaluable," Furtwengler says.

Dexter Mills, assistant school superintendent in Gainesville, GA, agrees that enlisting the help of students is essential to maintaining order: "Ultimately, there's only one kind of discipline that really works, and that's self-discipline. If you're just telling students what to do, they don't get a chance to learn that for themselves."

Rules and consistency are important

Involving students in the process doesn't mean throwing out the rulebook. In fact, studies show that kids generally behave better when they know exactly what's expected of them. Mary Mindess, director of the Center for Children, Families, and Public Policy at Lesley College in Cambridge, MA, observes, "We're not a group of secure adults in this society, and we wonder why kids are also insecure about behavior boundaries. Children sense that there are no real parameters. And they need parameters. Otherwise they feel compelled to keep testing the limits."

Mindess, who teaches a course on how to deal with children with behavior problems, says that it's a good idea to talk with kids at the beginning of the school year about what the rules of behavior will be. "You then have a policy and procedure in place, a code of civil behavior in every class, one that's understood and accepted by the group," she notes. "When the code is violated, it gives us a chance to talk about why it's important and how we can make it work."

Most classroom-management programs emphasize the importance of consistent and explicit rules. Assertive Discipline, a widely used program developed in the 1970s by consultant Lee Canter, calls for teachers to post lists of rules, rewards, and punishments. Teachers are expected not only to punish those who break the rules but also to congratulate those who don't. Although research on Assertive Discipline is scanty, a 1995 study published in the British Journal of Educational Psychology showed improved discipline in 15 Australian elementary school classrooms where this approach was tried.

Critics of Assertive Discipline and similar programs argue that it is counterproductive, quashing creativity and promoting uniformity through its emphasis on rules. In his 1996 book, *Beyond Discipline*, education writer

Turning Frustration to Fulfillment: New Teachers Need More Help with Discipline

By David T. Gordon

Jenny Kramer* wanted to teach. She spent six years in training—four at a prestigious college and two in a top-ranked masters program—and landed a job in 1996 at a magnet school in Manhattan. Excited by the school's low student-teacher ratio and full-inclusion policies, she looked forward to playing her own small part in school reform. But a few unruly students turned teaching into a daily trial. When students cursed at her, administrators told Kramer to toughen up. More-experienced teachers reacted to Kramer's frustration with a shrug: What did she expect? In June 1999, she quit teaching altogether. "I've had my fill," she says.

Kramer's case is hardly unique. A new survey of 118 school districts across the country shows that nearly 10 percent of public schoolteachers quit during the first year and 20 percent bolt within three years. The survey, conducted by Recruiting New Teachers (RNT), a nonprofit organization based in Belmont, MA, found that the biggest barriers to new teachers' success are poor classroom-management skills (82 percent) and disruptive students (57 percent). "It's pretty clear that teacher preparation is inadequate in this area," says the report's coauthor, Elizabeth F. Fideler.

Courses in classroom management, lesson preparation, and behavioral psychology in college and university programs might help future teachers get a theoretical handle on what to expect in the classroom—and provide them with a toolbox of ideas for dealing with especially challenging cases. But experts say that on-the-job training in discipline and other classroom skills offer the best hope for retaining new teachers. As Nancy K. Martin, who teaches classroom management at the University of Texas at Austin, puts it: "Training doesn't mean anything until teachers get in the classroom. It's like swimming—you can never really know what it's like just by reading about it."

That notion is echoed by a recent study indicating that successful classroom management is largely a function of experience rather than theory. The report—authored by a group of Ohio researchers—shows that grade school teachers with effective classroom management skills tend to rely more on intuition (the "tacit knowledge of experience," as the report puts it) than on any formula or program.

Such experience needs to be supplemented with good mentoring and support for new teachers, says Fideler, who spent 13 years in the classroom. Experienced teachers can help not only by sharing what they've learned, but also by

Alfie Kohn says, "This matter-of-fact demand for mindless obedience follows quite naturally from the premise that all problems are the students' fault." Still, most researchers and practitioners agree that a clear set of guidelines can help improve the learning environment in a classroom.

Consistency is especially important because studies show that students who perceive that rules are unfairly enforced are more likely to act out. An Indiana University study of 74 adolescents found that low-income students tended to feel they were disciplined more harshly than those from affluent backgrounds—and that that perception fueled an increase in misbehavior among the lower income students.

Take care of the little things

Some administrators argue that the way to improve discipline is to focus on petty offenses, such as talking back, cutting class, and taunting. If it's okay to curse at teachers, maybe it's okay to hit them, too. "The small things are important," says Dexter Mills. "Cutting in line at lunch can lead to fighting. You have to deal with details. If you do, they'll know you have rules, you have standards. I believe you'll have fewer of the more serious incidents if you don't let it escalate."

That approach might remind some of the social philosopher James Q. Wilson's "broken windows" theory of community policing, which has been credited with helping to reduce crime in such urban hotspots as New York, Boston, and Philadelphia. Essentially, Wilson argues that if police work with communities to reduce petty offenses—graffiti, panhandling, and so on—they are likely to have fewer major crimes to solve. Likewise, a school where seemingly insignificant offenses are ignored may experience a pervasive breakdown of civility.

Involve community and parents

When Deanna Burney, now assistant superintendent of schools in Camden, NJ, was a principal in North Philadelphia, she walked through the community every Friday afternoon, talking to parents not only about problems at school but also about the good things that were happening. "Parents were shocked," she recalls. "I would also invite them to come see the school, to make suggestions for improvement—to give them a sense of being part of their children's education." Burney suggests that schools find ways to give teachers time off to visit their students' homes.

Parents may not always realize just how much personal matters affect young people's school performance. For instance, in a study published earlier this year, Christopher B. Swanson and Barbara Schneider of the University of Chicago found that high school juniors and seniors who change schools are more likely to have behavioral problems than younger students. The authors report that even when parents think they're helping—say, by moving to a new neighborhood to give a troubled student a fresh start—the results may be counterproductive. "The potential benefits of residential and educational mobility late in high school tend to be counteracted by disruptions to a student's social support networks in the home, neighborhood, and school," they write.

By working with teachers and administrators who are clued in to the latest research, parents can make more informed decisions regarding their children's educational futures.

providing a sympathetic sounding board for junior colleagues at wits' end. Furthermore, mentoring provides a good example to kids. As Deanna Burney, assistant school superintendent in Camden, NJ, says, "We need cooperative teaching first, then cooperative learning. Too often, teachers work in isolation. We teach values and conflict resolution to kids by the way we adults work with each other."

Such issues take on special importance as more schools try to fill staff shortages with teachers from alternative certification programs. Such programs allow prospective teachers, usually older people making a career transition into teaching, to earn their credentials without going through a traditional university education program. Many critics of alternative certification say such teachers are not adequately prepared for many aspects of classroom management, including discipline. The RNT report suggests that good mentoring programs for all new teachers may answer those critics' concerns, and recommends ways for administrators to improve the lot of new teachers. They include:

- View the hiring of new teachers as a multi-year, developmental process.
- Give mentors stipends and time off to observe and coach their trainees.
- Invest in technology to improve communication among teachers by way of online forums, bulletin boards, and e-mail.
- Regularly evaluate new-teacher programs for their effectiveness in improving teacher competence and reducing attrition.

"Discipline is like swimming—you can never know what it's like just by reading about it."

Harold Howe II, a former U.S. commissioner of education, points out that medical doctors are required to do lengthy and closely supervised internships before they can practice on their own. The purpose: to give them on-the-job opportunities to learn and develop good judgment under the tutelage of senior physicians, in order to protect not only new doctors but patients, too, from the errors of inexperience. A similar system in schools, Howe says, could help stem the exodus of new teachers and improve the quality of instruction as well.

For all the talk about teacher shortages, teaching as a profession is growing in popularity. According to a recently published report by the Cooperative Institutional Research Program at the University of California, Los Angeles, a growing number of college students—10 percent of all freshman—say they'd like to teach at the K-12 level. The study also shows a sharp rise in applications to teacher preparation programs. Whether that trend continues may depend on what kind of training and mentoring new teachers get. ■

*Not her real name

For Further Information

Recruiting New Teachers
385 Concord Avenue, Suite 103
Belmont, MA 02478
617-489-6000
www.rnt.org

T. Dunn, C. Shriner, and C. A. Taylor "An Analysis of Experienced Teachers' Tacit Knowledge of Classroom Management." Paper presented at the annual conference of the American Education Research Association, April 1999.

The Cooperative Institutional Research Program (CIRP)
Higher Education Research Institut
University of California, Los Angele
3005 Moore Hall
Box 951521
Los Angeles, CA 90095-1521
www.gseis.ucla.edu/heri/cirp.html

Report incidents

Good statistics on classroom behavior can help tell practitioners what problems deserve the most attention. Willis Furtwengler says data collection can serve as an early-warning system to identify which students need help. "Prevention is more effective than reaction," he notes.

But reporting of data has its own problems. First, definition can be difficult. If one student bumps another, is that fighting or even assault? Also, according to Furtwengler, recordkeeping can become a goal in itself, drawing on valuable time. And teachers may be reluctant to report incidents either because administrations don't follow up on them or because it will make the teachers look bad. As one elementary schoolteacher says, "Teachers want to do a good job, but there's a fear that if they send kids to the office, the administration will think they're not. So they don't want to draw attention to their discipline problems."

For most teachers and administrators, the question of discipline really is more about learning than it is about gaining control of the classroom. Discipline and "the disciplines" are intertwined, the one feeding the other. Experts agree that an engaging curriculum can decrease behavioral problems, creating a better environment for learning. "Good planning is the key to good behavior," says Miguel Dip, director of instruction at Dearborn Middle School in Boston. "In the morning, I can tell if a there will be a problem in class that day by looking at what the teacher has planned." Frustrated or bored children are likely to act out, so it's important that children be engaged in their work.

Still, as any teacher knows, the best-laid plans may not always satisfy an unruly class. Clear and consistent policies, strong support for teachers from administrators, parents, and other teachers, and a positive role for students in solving problems can help ensure that "the disciplines"—and not disciplinary problems—get the lion's share of attention in every classroom. ■

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for discussion

Crisis Response and Prevention: Planning Ahead for Better and for Worse

By Karen Kelly

Littleton, Colorado. Jonesboro, Arkansas. Springfield, Oregon. The sites of recent deadly school shootings. Scott Poland has visited them all as part of the seven-member National Emergency Assistance Team, a crisis-response network sponsored by the National Association of School Psychologists (NASP). The team was organized after the 1995 Oklahoma City bombing when two local school psychologists, overwhelmed by young people's need for counseling, proposed a national organization to help schools in crisis. The 21,000-member NASP took up the challenge.

Since then, the group has responded to 18 major crises in three years, including school violence, natural disasters, and suicides. In the case of multiple deaths, two or more counselors are dispatched—if a school requests them—to assist in counseling and media relations. The team also offers workshops and publishes recommendations for crisis planning. Team members volunteer their time, and their expenses are paid by a variety of sources, including the NASP, several government agencies, and the schools themselves.

Even as Littleton tries to put its school community back together, other schools need to focus on violence prevention, says Poland, who has also created a video series entitled *Take Back Your School*. "School crisis plans must be more than pages in a notebook gathering dust on a shelf. They must be an ongoing, evolving part of conducting school," he insists. He recommends forming a planning committee made up of administrators, teachers, students, and parents. All members of the school community—from the superintendent on down—should know what their role will be if crisis hits, he adds. Among the questions Poland says such a committee should consider:

- In the event of a crisis, do we close school early or cancel for the next day?
- How do we get facts about the crisis to parents, as well as information on how they can help their children?
- How do we isolate and support school personnel or students who are interviewed by police?
- How do we contain the media?

Jay Goldman of the American Association of School Administrators admits that school leaders have been hesitant to allocate resources and time for crisis prevention: "[They] have been reluctant to spend that money if it means detracting from class size or the ability to hire new teachers. But in the wake of the Columbine shooting, administrators have been stirred into action." He notes that a growing number of districts are purchasing closed-circuit cameras, metal detectors, and other security systems.

Yet even in a strong school community with an active crisis plan, preventative classroom activities, and plenty of counselors, warns North Colonie (NY) School Superintendent Marya Levinson, there are no guarantees. "I'm humble enough to recognize that events will happen even with the best preparation," says Levinson, whose district has a crisis plan. "Most districts have such plans. But that doesn't mean we can prevent one or two students who choose to come in with automatic weapons."

No one has studied the effectiveness of the National Emergency Assistance Team. But Poland reports that the team members review each experience and rely on feedback from the districts they've worked with. So far, he says, the anecdotal evidence seems promising. ■

For Further Information

American Red Cross's Littleton page offers tips on counseling grieving kids.
www.redcross.org/littleton/index.html

National Association of School Psychologists
4340 East West Highway, Suite 402
Bethesda, MD 20814
301-657-0270
www.naspweb.org

S. Poland. "The Role of School Crisis Intervention Teams to Prevent and Reduce School Violence and Trauma." *School Psychology Review* 23 (1994): 175-189.

Schools Get Creative to Find Good Subs

Clusters, flexes, temps, and training help districts deal with a growing shortage

By Karen Kelly and Michael Chavez Reilly

Every morning at 6 a.m., Charlie Skidmore, assistant headmaster at the Brighton (MA) High School, calls the city's school department to find out how many teachers will be absent, and how many substitutes he'll need to cover their classes. When there aren't enough subs, teachers have to double up on classes, skip needed preparation time, and miss opportunities for professional development. "It puts a strain on everyone," says Skidmore. And not just at Brighton. Across the country, school districts are scrambling to find substitutes to fill empty classrooms.

While there are no national statistics showing just how many subs are needed, state data and anecdotal evidence confirm the problem. Several national trends are feeding the shortfall: ballooning student enrollments, dwindling ranks of teachers, and low unemployment that gives potential subs other options. "We were short of substitutes almost every day last year," reports Bob Minthorn, supervisor for school personnel in Hillsborough County, FL. "On our worst day, we needed 1,122 subs and I could only fill 914 of those vacancies. Substitutes who wanted to be teachers are long gone—they've been hired [as full-time teachers]."

From Florida to California, Texas to New York, newspaper headlines trumpet the need for more teachers. In California, 2,300 full-time teaching jobs were still vacant late in August, according to the state's education department. At the same time, New York City was trying to fill 3,000 spots, while Houston had 1,400 openings. Experienced subs are getting hired for those jobs, creating even bigger gaps in the substitute ranks.

No substitute for learning

Meanwhile, as schools come under increasing pressure to prepare students to reach high standards on state assessments, the need for substitutes grows exponentially. More subs are required to stand in for regular teachers engaged in much-needed professional activities like mentoring, collaborative assessment, and development workshops. That same pressure is pushing schools, even in the face of sub shortages, to find well-qualified fill-ins. Subs have to be more than the "warm bodies" and "babysitters" they've been derisively labeled. Several studies have shown that students typically spend 5 to 10 percent of their K-12 class time with subs. That's an average of one entire year of schooling over the course of 13 school years.

The shortage is prompting school districts to find new ways of attracting and, more importantly, keeping good substitutes.

More subs are needed to stand in for teachers engaged in activities like mentoring, collaborative assessment, and development workshops.

Some are trying the obvious way, offering better pay and benefits, more professional opportunities, and other perks. In Nebraska, for example, districts are in the midst of a price war, boosting substitutes' daily pay by two-thirds, from $45 to $75. When better pay and working conditions aren't enough, administrators have to be more innovative.

Some schools develop partnerships with local colleges and universities. Traditionally, substituting has served as a training ground for new college graduates who want to try out the teaching profession, but few schools have developed formal ties with college education programs. Trotwood-Madison City School District outside of Dayton, OH, is an exception. The district developed a program with Wright State University in which fifth-year education majors work an entire year as graduate assistants in a school, shadowing a teacher, student teaching, and substituting. Each student is assigned to one classroom, though they may help out elsewhere at times. Trotwood-Madison High School principal Jim Brown describes it as a win-win situation: "[The subs] get to know the building, the staff, and one particular classroom very well. And we get people who are on the cutting edge of teaching strategies. They come in like a ball of fire."

The advantage of familiarity is prompting more school districts to hire permanent subs. And while permanent subs usually command more money—not to mention benefits—schools are paying up to keep classrooms operating smoothly. For years Watertown, MA, kept a few permanent substitutes on the payroll but had trouble finding the additional daily subs it needed, according to Superintendent Sally Dias. Then the city "stole an idea from neighboring Newton" and hired what Dias calls "instructional support staff." These part-time, permanent subs are assigned to specific schools for one to three days and, when possible, participate in professional development and staff meetings. For instance, a graduate student who takes classes Monday, Wednesday, and Friday may work in a school every Tuesday and Thursday. Watertown—a district with 3,000 students—now has 40 such teachers, and "very rarely needs subs," Dias says. "And there's not the anxiety of having someone in the building whom nobody knows, and whose qualifications aren't known."

Part of the staff

At Beacon Schools, a private K-12 school in Oakland, CA, founder Thelma Farley included "flexible teachers" who act as permanent subs in the school's educational design. Since the school operates year-round, teachers typically take four to six weeks off at different times throughout the year. When subs are needed, the "flexes" take over. When they're not subbing, the flexes work alongside regular teachers as aides and tutors, and they are included in all staff meetings and professional development. "They are part of the staff and become colleagues with the teachers," says Farley. "They're often people who enjoy teaching but don't want the responsibility of their own classroom."

The Boston Public Schools, a larger district, use what is called a "cluster strategy," in which subs are assigned to a home school within one of the district's ten clusters of

Subbing With Success

By Karen Kelly

When administrators at Giffen Elementary School in Albany, NY, reformed their curriculum last year, they had to change the way they use substitute teachers. Giffin, which had some of the city's lowest test scores, had signed on with Success for All, a curriculum developed by Johns Hopkins University. The program requires students to break into reading groups for 90 minutes each day, during which teachers lead kids through a fast-moving menu of timed tasks. For instance, one exercise requires students to pick out vocabulary words from the text and then write complex, meaningful sentences of their own. Teachers are expected to monitor each student's progress during the class and also keep the pace moving so kids won't get bored.

When the program was first installed, Giffin found that substitute teachers—unfamiliar with the lesson plans—could not cover all the material in a period. "It's rather complex," says Julie Shudt, Giffin's reading program facilitator. "We may do 15 tasks in 90 minutes. If a substitute is not familiar with it, there's no way they'd get through it." Also, Success for All emphasizes a positive, "democratic" approach to discipline, something subs might not be familiar with.

So, Giffin administrators convinced the district to assign two permanent subs who trained with the regular teachers in Success for All. Since the whole school reads at the same time, Giffin trained its music and computer teachers so they could work with a reading group in a pinch. As a result, no time was lost in reading groups last year, Shudt says.

One of last year's permanent subs, Scott Thompson, says the arrangement made him "feel more useful" because he knew kids were learning. And, he admits, it spared him the dreaded fate dealt to so many subs by bored students: "If they suspect you don't know what you're doing, they're like sharks who smell blood in the water. You never want to look like you're lost." ■

schools. On those rare days when a home school is fully staffed, subs tutor or work at other schools in the cluster. That approach lets subs become familiar to kids and regular staff, and familiarity, administrators say, is a key element in solving discipline problems. While cluster subs are expected to fill in at different grade levels and subjects, they are usually assigned according to their interests and academic backgrounds. They negotiate their terms through the Boston Teacher's Union, are guaranteed a full year of work ($92 per day), and earn sick days and health benefits. "The new cluster sub strategies allow us to assign the better qualified people with more experience under their belts to these positions," reports Beverly Pina, assistant manager for human resources for the Boston schools.

An increasing number of schools are turning to temp agencies to find subs. This fall, Kelly Services, which has 1,200 offices in the United States, will launch Kelly Educational Staffing. "In the last few years, school districts, particularly in the South, have approached our local branches with this need," says Teresa Setting, director of product management for Kelly. In just two years, Kelly's substitute ranks swelled to 300, leading the company to create the new subsidiary. The latest deal: a $54,000 contract with Louisiana's St. John the Baptist Parish. "We meet with the school district to determine their needs and create a plan accordingly," notes Leslie Oliver, the product manager. "We take over payroll, benefits, training, calling services. The subs become Kelly employees."

With increasing emphasis on state assessments, subs have to be more than "warm bodies" and "babysitters."

Another new temp agency, Opis Substitute Management, opened for business in 1998. The company, which is owned by Select Appointments, an English firm with 24 offices in the United Kingdom that serves only schools, already has contracts with 150 U.S. school districts for the 1999–2000 school year, says its director, Bob Coffield. About 45 percent of Opis subs have never taught before; they're recruited from the ranks of retirees, recent college grads, and corporations. Opis (Latin for "in support of") has experienced teachers train them in classroom management and lesson planning.

The training and professional development of substitutes are growing concerns as schools look to improve the performance of both teachers and students. At Utah State University's Substitute Teacher Training Institute, Geoffrey Smith is conducting a three-year study for the U.S. Department of Education on the effectiveness of substitute teachers and is leading a program intended to eventually train 6,000 substitutes nationwide. He considers training a crucial element that is missing from most districts, particularly in the areas of classroom management and discipline: "How can a sub implement a lesson plan effectively without a lot of pertinent experience? We're asking subs to do a tremendous task."

For Bob Minthorn, who has trained 150 substitutes, the training has provided something he desperately needed: a reliable pool of substitute teachers who have stayed with the district. "We have half as many complaints from substitutes who go through the training as from those who don't," Minthorn says. "I really think the more training you have, the better job you'll do." He began his training program as a three-day course for college graduates who didn't have teaching degrees. The first two days covered everything from discipline to using audio-visual equipment;

the third day was reserved for job shadowing. But as the numbers of college-educated subs dwindled, he turned to training those with just high school degrees. He began offering a 10-day substitute-training course that included refreshers in academic subjects—and doubled his pool of subs in the process.

Joyce Evans, program director for the National Science Foundation's Teacher Enhancement Program, says that substitute teachers can make or break school reform efforts. "If you use substitutes on a regular basis, you want to be sure that what the sub is doing is good for the children," notes Evans. "Otherwise, the reform backfires." Seventy-two school districts have received NSF grants to retrain their teaching staff in math and science education. The NSF encourages them to include substitutes in the program. "We make sure what's going on when teachers are absent is still good stuff," Evans says.

The Midland Public School District near Detroit is one of the NSF grant recipients. For the past four years the district has conducted a two-week summer institute that trains elementary schoolteachers and substitutes to teach science. "[The subs] show more confidence in their instruction and ability to supplement what the science teachers are doing," says Sarah Lindsey, the district's science curriculum coordinator. "This also gives them the chance to work with the teachers for whom they sub. It gives them the chance to collaborate."

Subs say that schools could go a long way toward solving their shortages just by making the workplace more inviting.

Each year, one or two substitutes taking part in the workshops have been hired as full-time teachers after principals noticed their improved skills.

Traditionally, subs have not been treated well either by students or by school administrations. But with increasing demand for their services—and their growing awareness of their own importance—that may change. In Springfield, MA, the substitutes' union came together after a change in city policy required subs to make inconvenient trips downtown to collect their meager earnings. "As it turns out, this indignity was fortuitous," says Jonathan Tetherly, a member of the 250-person union. "The central office became the perfect place for substitutes to gather and discuss their grievances." Last February, the union won a 30 percent pay hike. In August, newly unionized subs in Fresno, CA, struck a deal for a 15 percent increase.

Subs say that schools could go a long way toward solving their sub shortages just by making the workplace more inviting. "The tone of a school is set at the top," says New York City sub Davida Weber. "If you are a warm administrator and welcome newcomers, then teachers will welcome subs with less suspicion and more affection." That includes taking care of basic needs: "Usually I carry my coat and bag around with me all day. I'd love to have a place where I can put my stuff." ■

Karen Kelly is a reporter and writer based in Albany, NY. Michael Chavez Reilly is a teacher at Boston Latin Academy and a freelance writer.

For Further Information

The Substitute Teachers Homepage offers information for and about subs.
http://my.voyager.net/garman/default.htm

Geoffrey G. Smith
Substitute Teaching Institute
Utah State University
8200 Old Main Hill
Logan, UT 84322-8200
(800) 922-4693
e-mail: SubEd@cc.usu.edu
http://cc.usu.edu/~slm1n/SUBSTITUTE/staff.html

Professional Year Program (PYP)
Wright State University
3640 Col. Glenn Hwy
Dayton, OH 45435-0001
www.wright.edu/news_events/news/pyp.html

Opis
401 Edgewater Place, Suite 140
Wakefield, MA 01880-6210
http://opiseducation.com/

Using Water to Light Kids' Fires

By Kelly Graves-Desai

In 1983, Utah State University started a program designed to train K-12 teachers to teach water conservation, an important topic in the arid state. But the International Institute for Water Education—a joint project of the university's education and engineering colleges—never really won the interest of schools.

So in 1994, education researcher Geoffrey Smith, one of the program's founders, decided to get the message out through another group: substitute teachers. Within a year, the water education institute had become the Substitute Teacher Training Institute, where subs learn basic teaching skills. Smith also got funding from the U.S. Department of Education for a study on what makes substitutes effective.

Subs, says Smith, usually rely on schools to provide the day's lesson plans. But what if the sub knows nothing about the topic? What if no lesson plan is prepared at all? Smith reasoned that subs need to have some backup lesson based on a topic they care about or at least know about. He subsequently developed a science curriculum for subs. With funding from Utah's Environmental Protection Agency, he visits schools and trains subs to teach specific science lessons such as using bubbles to demonstrate surface tension.

"They can bring this one lesson to a classroom. Kids get really excited when a sub says, 'We'll do your regular work first and then try this,'" Smith says. "It's a question of what you want from a class. If we ask a sub to teach something they are good at, they may end up being more effective." In other words, kids will at least learn something. According to Smith, many of the subs he's trained say they are no longer greeted by kids with groans and spitballs, but by students eager to see if they'll spend their classtime building boats or blowing bubbles. ■

Don't Believe the Troubled-Boy Hype

By Gwen J. Broude

The big news these days is that our boys are in trouble. A number of psychologists are warning us that young males in contemporary America are increasingly violent, undisciplined, depressed, isolated, fragile, and alarmingly low in self-esteem. The problem, we are told, is epidemic, even among youngsters who appear to us and to themselves to be normal and happy.

The idea is not supported by the facts. *The Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), which reports the percentage of children and adults exhibiting various emotional disorders, reveals that adjustment problems are uncommon in youngsters of both sexes. The proportion of children displaying behavioral and emotional difficulties typically range from 1 percent to 4 percent. The numbers increase for adolescents, but even here, we are talking about a small minority of young people. And adolescent behavioral and emotional disruptions are hardly a contemporary anomaly. Anna Freud observed over 50 years ago that adolescents behave in ways that, if exhibited by adults, would be classified as pathological. So, rather than pointing to the fragility of boys, the statistics dramatize the resilience of our children.

If males are in trouble because they display aggressive tendencies, then they have always been in the same trouble.

This perception that boys are in crisis is being fueled by psychotherapists and by the few horrifying cases of school violence that we have witnessed over the last several years. But these are hardly reliable indices of the mental heath of boys in general. Youngsters who visit therapists are likely to have some kind of problem—that's why they are seeking help. And it is normal for people to think that some well-publicized behavior is common when it is in fact rare. This way of thinking is so normal that social psychologists have given it a name: "the availability heuristic."

Indeed, the worry that boys today are emotionally crippled is powerfully contradicted by cross-cultural research showing that males and females are equally happy with their lives. In North America, in particular, the number of individuals of both sexes who view themselves as pretty happy or very happy is 90 percent. Further, gender accounts for only 1 percent of variation in people's sense of well being. And 15 year olds, the youngest subjects in the study, are as likely to be happy as anyone. So the subjective experience of adolescents, including males, seriously undermines claims about a crisis in the emotional adjustment of our boys.

It is true that boys display more aggression than girls. This tendency has captured special attention among those concerned that our boys are in trouble, no doubt because of the school shootings. But male aggression is not unique to contemporary life. Rather, it is a truism that males are and have been more aggressive than females across time, societies, and species, suggesting that male aggression is not due to the quirky child-rearing practices of any particular culture. If males are in trouble because they display aggressive tendencies, then they have always been in the same trouble.

It is, nevertheless, possible to combat male aggression, and parents of the relatively few boys who have problems with aggression should do just that. Aggressive conduct is a precursor and predictor of antisocial behavior, delinquency, and poor school performance. But research shows that the behavior of at least some aggressive boys can be improved by firm, rule-oriented parenting, and not by the half-hearted, ineffective disciplinary measures practiced by the parents of many troubled kids.

We might also worry more about the consequences of raising boys without male authority figures in their lives. Across cultures, in families where fathers are absent, the chances of aggression and other antisocial acts by boys increase. Sadly for mothers, male children are typically less compliant than female children, both here and around the world. Hence the refrain, "Wait 'til your father gets home." Men seem to provide a civilizing influence on the aggressive impulses of boys that women cannot.

We make such a fuss about the differences between males and females that we forget an important fact: in the last analysis, gender accounts for only 2 to 5 percent of the differences between people concerning virtually every emotional, behavioral, and cognitive characterstic that we can measure. Even with regard to aggression, gender accounts for only 5 percent of the differences between children. This means that the differences between people are far more likely to be a function of such factors as genetic heritage, temperament, child-rearing experience, personal values, attitudes toward life, and so on than they are of gender. This robust finding is hard to reconcile with the claim that boys are in trouble.

Clearly, there are some boys—and girls—who have problems, and we should be vigilant in this regard. But fear mongering about the state of our boys can cause the competent caretakers of well-adjusted boys to have nagging doubts about their own abilities and about the well-being of the youngsters they are supervising. And that cannot be a good thing for us or our children. ■

Gwen J. Broude, professor of psychology and cognitive science at Vassar College, is the author of Growing Up: A Cross-Cultural Encyclopedia. *This article is adapted from a longer essay that appeared in* Public Interest, *Summer 1999.*

Coming soon...

Howard Gardner on the Arts and Multiple Intelligences

Technology in Schools: What Works Best for Kids

Grade Inflation

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The Arts Step Out from the Wings

As interest in arts education rises, researchers explore what young people learn from the arts—and how to make sure at-risk students benefit, too.

By Jane Buchbinder

Creativity, perseverance, and striving for excellence. According to U.S. Education Secretary Richard Riley, these qualities define both the goals of education reform and the process of studying the arts. Small wonder, then, that attention to the presence of the arts in classrooms is dramatically on the rise. In less than two decades, the number of states requiring study of the arts for high school graduation has surged from two to 32, according to the National Arts Education Association, and an additional 14 states intend to adopt arts standards in the near future.

With this increased emphasis on the arts, researchers and practitioners are trying to sort out what role the arts play—or should play—in education and how to develop quality programs that reach more students.

The renewed interest in the arts is actually rooted in events that took place decades ago. Following the excitement of the Sputnik challenge of 1957, the United States turned its educational focus to math and science. As the National Science Foundation mushroomed in size, the humanities were relegated to a second-class status, and arts education became viewed by many as a luxury rather than as a vital means for developing young minds.

A wealth of anecdotal evidence seems to suggest that the arts can invigorate the learning process in a variety of ways.

In the early 1960s, arts educators and researchers reexamined the arts with a scientific lens, debating whether in fact the arts were—or could become—a discipline with a fundamental structure and curriculum. Scholars such as Jerome Bruner, then at Harvard, and Ohio State's Manuel Barkan argued that a more rational, cognitive approach to arts education was needed. Philosopher Norman Goodman founded Harvard's Project Zero in 1967 to study and improve arts learning in this context.

Elliot Eisner, professor of education and art at Stanford University, later experimented with an arts curriculum project that emphasized professional development. That laid the groundwork for what is now called discipline-based arts education—an approach that integrates art making with art criticism, art history, and aesthetics. In the early 1980s, the Getty Education Institute for the Arts in California began spending millions of dollars to promote discipline-based arts education.

A New View of the Arts

Howard Gardner's theory of multiple intelligences has paved the way for a broader outlook on the contributions the arts make in the classroom. This cognitive psychologist has helped educators recognize that learning takes place through many means in addition to book reading, and that children are best served by having opportunities to gain and demonstrate their understanding in a variety of ways (see *for discussion*, p. 5).

This relatively new way of viewing the arts—as a process embracing thoughts, emotions, and reason—has led some to hope that the arts can help repair the nation's education system. Proponents of arts education say the arts make learning more enjoyable and interactive, foster an interdisciplinary approach to learning, build self-esteem, teach critical thinking and self-discipline, and allow students with different learning

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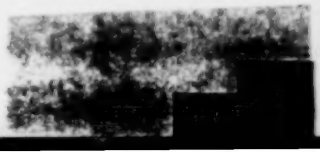
Currently on the web:

The Research Feature
This month, the focus is on the arts in education, with online links and other resources.

The Forum Feature
A conversation with *Angela's Ashes* author Frank McCourt, who speaks about his experiences as a New York City high school teacher.

Also visit our past research features, including those on retention, substitute teaching, and high school reading programs.



PERIODICALS

styles and language skills to be successful in their own way.

With this in mind, research projects supported by corporate, foundation, and government offices are focused on three central questions: Are the arts aiding student achievement? Who has access to good arts programs? What do high-quality arts programs look like? The recently issued *Champions of Change*, a collection of seven research studies by some of the country's best arts-education researchers, attempts to answer some of those questions (see p. 6).

Achievement and Access

One well-regarded examination of the effects of the arts on achievement has been led by James Catterall of the University of California, Los Angeles. Looking at the results of the 1988 National Educational Longitudinal Survey (NELS: 88), which tracked the progress of 25,000 middle and high school students over 10 years, Catterall found that students with "high arts involvement"—that is, those who took at least two arts classes per week and participated in extracurricular arts—performed far better on standardized tests than students with "low arts involvement." Of "high arts" 8th graders, 66.8 percent scored in the top half on standardized tests, compared with 42.7 percent of "low arts" students. By the 10th grade, 72.5 percent of those same "high arts" students scored in the top half of standardized tests, while just 45 percent of the "low arts" students did. That suggests that students involved in the arts have an advantage that grows with time and experience, according to Catterall.

Not surprisingly, the study also shows that students are twice as likely to have low arts involvement if they are of low socioeconomic status (SES)—that is, from less-educated or less-affluent households. Students from high-SES households typically enjoy many advantages—private art lessons, affluent school districts (where arts programs are more prevalent), access to transportation for after-school arts activities, and the encouragement of parents who have themselves benefited from exposure to the arts.

One noteworthy finding came from Catterall's comparison of low-SES students with either "high arts" or "low arts" involvement: the "high arts" students performed much better than their counterparts on standardized tests and in such subjects as math, reading, history, and geography.

If the arts are an important part of learning, say arts advocates and researchers, then they will need to be made available not just in affluent school districts or in a few less-affluent schools chosen for research and experimentation, but across the board. Arts research in the next decade will likely point in that direction.

The Quality Question

Much arts education research is also focused on how to build quality arts programs. *Gaining the Arts Advantage*, a nationwide study issued earlier this year by the President's Committee for the Arts and Humanities and the Arts Education Partnership, cites several common elements of the high-quality programs in the hundreds of school districts it surveyed.

PROFILE NO. 1

Hanna Woods Elementary School, Chesterton, MO

At the Hanna Woods Elementary School (K-5), the arts play an important role in teaching just about any subject. Last year, a local storyteller and dance teacher conducted classes including "Dance to Make Landforms," a geography lesson, and "Rhythms for Small Hands," a drumming lesson that taught history.

Hanna Woods was the first school in Chesterton's Parkway School District to benefit from a district-wide effort to improve arts education that began in 1993. Each summer, faculty, students, and members of the Parent-Teacher Organization at Hanna Woods meet to choose an arts theme, such as "Journeys" or "Celebrate America," for the coming year. Arts Partners—part of the St. Louis chapter of the nationally known arts group Young Audiences—helps match the school with artists from across the state. Arts Partners also provides professional development, giving teachers and administrators a chance to work with artists on ways to enhance instruction in various subjects through the arts.

This year, 11 of Parkway's 28 schools are taking part in Arts Partners. "Success breeds success," says Patti Riggle, coordinator of fine arts for the Parkway District. "Once other principals saw what was happening at Hanna Woods they wanted to get involved, too." The district hopes to eventually have all of its elementary schools following the Hanna Woods model.

While principal Jackie Frisbee says the school does not use arts programs and curricula as a means to raise test scores, she does note one remarkable "coincidence" that seemed to show a connection. Two years ago, the school's 3rd-grade class took part in a program called Relationships of Living Things, which used dance to teach life sciences. On state assessment exams later that school year, the class scored significantly higher than other 3rd graders in the district on one particular section, "Ecosystems and the Interaction of Organisms with the Environment."

Frisbee says that she wasn't surprised at the "coincidence." "Concepts are easier to remember when you learn tactilely and kinesthetically," she says. "Think of the facts you can remember by learning a song."

For administrators eager to integrate the arts into their schools, Frisbee offers a few pointers. First, make sure the parents and the community understand that it's going to cost money to get talented artists. In a tight economy, there are still many ways to get money, including grants and fundraisers. "What you get for the money is priceless," she says. Second, make sure the teaching staff understands that the arts will be a vital part of the curriculum, and that they will benefit their instruction. "Get teachers invested," she says. Third, make sure people understand that the arts benefit not only kids learning, but that they enrich other areas of kids' lives, too. ■

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PROFILE NO. 2

Maple Lane School, Centralia, WA

Even when the arts are only informally linked to curriculum, they can help teach content, says Bob Sotelo, who has taught art for 21 years at Maple Lane School. Situated inside a maximum-security facility for juvenile offenders, Maple Lane's 300 high school students present special challenges: 40 percent have a 3rd- or 4th-grade reading level, he says. "It's not a question of intelligence, but attendance. They just haven't been to school enough," he adds.

Sotelo sees his job as a chance to help kids get interested in learning again. He has plenty of opportunities. Students must take art classes every day of Maple Lane's 220-day school year, he says. They do so in relatively small groups of 12 to 14.

"We try to blend art with other subjects," he says. "We get them to write about the music or art projects they're working on. We talk about math when we figure out measurements for various projects. I'm always conscious of the fact that they can be learning more than art in here. Since they know they're not going to be tested in this class on math skills, they tend to relax more. They can learn it without being threatened."

Sotelo cites one recent project as a good example. Students decided they wanted to make totem poles. The project required students to strip and sand the treetrunks, then create images of their own design or heritage to put on the poles. The students helped choose the artist in residence, viewing proposals and samples of their work from a range of candidates. Then they talked about their budget—how much money they had to spend and how to spend it—and chose their materials accordingly. They learned some essential math skills in the process, says Sotelo.

"There are very few behavior problems," says Sotelo. "Art turns a light on with these kids. They're surprised they have ability." The students also get the chance to show their art in public shows, which, he says, "gives them an outlet, a voice—some kind of positive interaction with society." ■

For further information

ArtsEdge, The John F. Kennedy Center for the Performing Arts, Washington, DC 20566; 202-416-8000
artsedge.kennedy-center.org/artsedge.html

Arts Education Partnership, One Massachusetts Ave., NW, Washington, DC 20001-1431; 202-326-8693
aep-arts.org

J.S. Catterall. "Does Experience in the Arts Boost Academic Achievement? A Response to Eisner." *Art Education* 51, no. 4 (July 1998): 6-11.

E.W. Eisner. "Does Experience in the Arts Boost Academic Achievement?" *Art Education* 51, no. 1 (January 1998): 7-15.

Getty Education Institute for the Arts, 1200 Getty Center Dr., Los Angeles, CA 90049; 310-440-7300.
www.artsednet.getty.edu

National Arts Education Association, 1916 Association Dr., Reston, VA 20191-1590; 703-860-8000
www.naea-reston.org

Three important studies—Champions of Change; Young Children and the Arts; and Gaining the Arts Advantage—*are available from*

The President's Committee on the Arts and Humanities, 1100 Pennsylvania Ave., NW, Suite 526, Washington, DC 20506; 202-682-5409
www.pcah.gov

Project Zero, Harvard Graduate School of Education, 321 Longfellow Hall, 13 Appian Way, Cambridge, MA 02138
pzweb.harvard.edu

Reviewing Education and the Arts Project (REAP), Project Zero
www.pz.harvard.edu/Research/REAP.htm

SUAVE, California State University, San Marcos, 333 S. Twin Oaks Valley Rd., San Marcos, CA 92096-0001; 760-750-4000
ww2.csusm.edu/SUAVE

These include: community and parent involvement in school arts programs; opportunities and funding for student exhibitions and performances; written policies that affirm the value of the arts; top-rated artists in residence; and administrators and school boards that treat arts education the same as other subject areas, especially at budget-cutting time.

Districts that get hard hit at budget time can still succeed in building effective arts programs by using a little creativity, the report shows. Redondo Beach (CA) School District, for example, trains parents to assist in its elementary school arts programs, giving them a chance not only to learn more about the arts themselves, but also to build stronger ties to local schools. Another example is the Linwood A+ Elementary School in St. Paul, MN, where founding principal Kris Peterson shrewdly hired a part-time grants writer who doubled as a vocal music instructor.

Teachers as Artists

Bringing teachers into the world of arts, and artists into the world of teaching, is another important element of successful programs. That's the focus of SUAVE (the Spanish acronym for United Community for Arts in Education), a research project directed by Merryl Goldberg of California State University, San Marcos. The program provides teachers with weekly in-class coaching from professional artists on ways to teach subjects such as math, science, language arts, and social studies through the arts. In addition, teachers get discounted tickets to arts events and professional development at arts centers. Goldberg's research, which consists of classroom observations and interviews with students and teachers, shows that the arts become another means of expression in the classroom—an important resource in a multilingual state like California. "The teacher-artist relationship goes to the core not only of teacher learning, but [also] of teachers' relationships with their students, because teachers learn new ways of communicating content," says Goldberg. "Teachers in turn invest their students with the same skills. So kids who have trouble understanding or expressing themselves in English have an opportunity to fully participate in learning."

Districts that get hard hit at budget time can still succeed in building effective arts programs by using a little creativity.

A wealth of anecdotal evidence from students, teachers, and administrators seems to confirm the notion that the arts can invigorate the learning process in a variety of ways. When Kathy Greeley's humanities class at the Graham and Parks School in Cambridge, MA, creates a play, she challenges her students to incorporate local history and places in order to gain a better understanding of the world they live in. Nina Ward, 13, the lead actor in one of the plays Greeley directed about the construction of the American Dream, agrees: "When I have to show history through acting, I learn more because I kind of have to live it to explain it to myself."

Christopher Forehan, former principal of the multicultural Chavez Elementary School in Norwalk, CA, which serves mostly low-income kids, says he didn't think much about what his students might gain from the arts. A pro-arts superintendent changed that, insisting that arts be given a bigger role in his district. With strong arts partnerships from the Getty Foundation and the Music Center of Los Angeles, the arts were blended into the Chavez School curriculum. The move changed Forehan's perception of the arts in education.

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"As the principal, I had to be involved, and that's why I think it worked. We had total school involvement," he says, explaining that he participated in creative activities whenever there was a resident artist. "We learned to use descriptive words by focusing on a Monet painting. We used dance to describe the geography and plant life in our region. The kids worked with a writer and professional actors to create plays. That got them very excited and motivated. And that's how I learned to love the arts, too."

Can the Arts Be Measured?

One of the most challenging questions facing arts advocates and researchers is how to evaluate arts programs. Last year, while calling into question several studies that claim to link arts education with achievement in other subjects, Elliot Eisner of Stanford argued in the pages of the journal *Art Education* against trying to make such links. "When such contributions become priorities," he wrote, "the arts become handmaidens to ends that are not distinctively artistic and in the process undermine the value of art's unique contributions to the education of the young."

Some scholars point to the Mozart Effect as a good example of what goes wrong when arts research is misunderstood. In 1993, researchers from the University of California, Irvine, suggested that college students who listen to Mozart have temporarily improved performances on spatial-temporal reasoning (especially valuable in math)—evidence that seemed to bolster the idea that the arts enhance learning in other disciplines. But an exaggerated interpretation by the press and policymakers of the findings turned it into one of the most misreported and misused studies in recent memory. The governor of Georgia, for example, raised $100,000 in private funds to provide families with newborns with classical music CDs, in the hope of improving the future intellectual capacities of children.

Ellen Winner, professor of psychology at Boston College and senior research associate at Project Zero, is countering what she calls "bogus reporting" with the Reviewing Education and the Arts Project (REAP), a reexamination of hundreds of arts studies from the 1950s to the present. Formerly an art student, Winner is an advocate for arts in education. Nonetheless, she says her study is finding more anecdotal evidence than hard scientific data about the link between arts and achievement.

Criticized within the pro-arts community for questioning the work of researchers, Winner says her motive is to set the arts on the sturdiest ground possible: their intrinsic merit. If arts programs live by the sword of rising test scores, they may die by that same sword, she contends. "If research ultimately refutes the arts' ability to raise academic test scores, people will say, 'Well, okay, we don't need the arts.'"

The difficulty of trying to scientifically document the value of the arts may itself be a measure of their educational depth and complexity, says Jessica Davis, founding director of the Arts in Education program at Harvard's Graduate School of Education. "If, in responding to a child's writing, you notice the emotional, expressive content and the intellectual excitement of the plot, and say, 'This is very good, but I don't know how to measure it,' you're forced into the wrong conversation," she says.

"Good arts programs require sustained effort, sustained resources, an actively involved community, and significant professional development."

By demanding conventional assessment measures for content that isn't easily tested, policymakers may be hindering the development of vital programs in the arts, as well as in math, English, history, and science, arts advocates say. Perhaps this is part of the reason that spending on the arts makes up only 6 percent of elementary and secondary school budgets. Only 3 percent of students in 1997 attended schools with a substantial dance program for 8th graders.

The Big Disconnect

In fact, despite all the good press that school arts programs have gotten, the arts still have only a marginal presence in mainstream education. The arts-friendly districts highlighted in reports like *Gaining the Arts Advantage* are the exception, not the rule, says Steve Seidel of Project Zero. "There are lots of voices talking about the importance of the arts in education, but there's a big disconnect in action," he says. "One reason is that models of high-quality arts-in-schools programs are not commonplace enough. Like any advance in education, it is difficult to design a program that is highly effective. Good arts programs require a sustained effort, sustained resources, an actively involved community, and significant professional development. And all that doesn't come together often enough."

Richard J. Deasy, coauthor of *Gaining the Arts Advantage*, says that another impediment to the arts is that it's not generally assumed that they provide good career options. "This is a terrible misconception," he says. The arts certainly have a huge audience: consumers spent more than $10 billion on admissions to performing arts events in 1997, a figure that had nearly doubled over the previous five years.

As researchers continue to examine the role the arts can play in educating young people, practitioners who are already convinced—often by their own experiences—that the arts have an essential place in the classroom aren't waiting for "hard" evidence. Jackie Frisbee, principal at the Hanna Woods Elementary School in Chesterton, MO, says she can see for herself how beneficial her school's arts programs are: "I see them teaching kids respect for talent and creativity, both their own and that of others. And that increases their love of learning. My feeling is that the arts enrich a student's whole life."

That goes to the heart of what schooling is all about, says Project Zero's Steve Seidel. "The job of education is to be engaging and challenging, to address important issues in human experience, to inspire children to think hard, and to provide them the opportunity to demonstrate what they've learned. Seems a shame not to link the two enterprises." ■

Jane Buchbinder is a freelance writer based in Brookline, MA.

The Happy Meeting of Multiple Intelligences and the Arts

By Howard Gardner

Contrary to what you may have heard, there is no part of the mind/brain that is dedicated specifically to the arts. Indeed, I don't believe that our species evolved over thousands of years to be able to participate in the arts, except for the obvious fact that most of us are able to carry a tune or draw a house or dance in time, more or less. However, we are the kind of species that can learn to carry on those activities that are valued by our culture. And so, when we find ourselves in an environment where certain activities are held in high regard, and where we are given the opportunity to engage in those activities, most of us will turn out to be pretty good.

Effective arts education presupposes two conditions: a mind/brain that is capable of mastering the arts, and a supportive environment. My theory of multiple intelligences provides a basis for education in the arts. According to this theory, all of us as human beings possess a number of intellectual potentials. Schools have generally addressed the linguistic and logical intelligences, but other institutions and situations can encourage the nurturance of at least six other intelligences: spatial, musical, naturalistic, interpersonal, intrapersonal, and bodily-kinesthetic.

Note that none of these is an artistic intelligence: as I said before, we did not evolve specifically to make or appreciate the arts. Art is a human invention, and the disciplines required to carry out the arts were also devised over the centuries by gifted individuals, groups, and communities. As I see it, every intelligence has the potential to be mobilized for the arts. In writing this essay, I am using linguistic intelligence in a mundane way. If I were to pay particular attention to words, rhymes, assonances, metaphors, and the like, I would be using linguistic intelligence in an artistic way. Similarly, spatial intelligence can be used for navigation, surgery, or anatomy; or it can be used, more artistically, for painting, sculpture, or architecture. One may think, casually, that musical intelligence must be used artistically. However, a moment's thought reminds us that we can use the sounds of music to call troops to order, to announce the time, or to deaden pain in the dentist's office. None of these uses is particularly artistic.

Most cultures, and certainly those that consider themselves to be highly civilized, do not need special arguments for including the arts in their schools. It is assumed that Chinese students will learn ink and brush painting, and that European students will be informed about the art and music of their country. In the United States, however, such automatic allegiance to the arts does not exist. And so, inclusion of the arts in the regular curriculum of school has always been a struggle. Nowadays, many hard-pressed proponents put forth instrumental arguments: teach classical music to raise IQ, have painting classes to produce creative business persons. I find this a very dangerous and slippery slope. If arts live by instrumental arguments, they may also die should those arguments be proved faulty—or should someone find a less-expensive way to raise IQ or spawn imaginative businesspeople.

The coming together of multiple intelligences theory and artistic education is mostly an accident, but I consider it to be a happy accident. Once I had put forth the notion that there exist several human intelligences, many educators embraced the idea that we should be sure to nurture each of these intelligences in school. And this line of reasoning soon led to the conclusion that the arts deserve a featured place in schools. As an inveterate proponent for high-quality arts education for over thirty years, I am delighted by this strong advocacy. Moreover, I am comfortable with it, because participation in the arts is a wonderful way to develop a range of intelligences in children.

Most cultures do not need special arguments for including the arts in their schools.

I would add, however, that there are other compelling reasons for arts education. Among them are the likelihood that skill and craft gained in the arts help students to understand that they can improve in other consequential activities and that their heightened skill can give pleasure to themselves and to others. (This could be construed as an instrumental argument, but it is instrumental only in the broadest sense.) Human beings have done many terrible things, but they have also done some wonderful things; among these are the artistic genres and works that have accumulated over the centuries and that remain one of the best markers of a civilization. The arts also provide uniquely individualistic insights into remote persons and cultures, even as they also allow one to be in closer touch with the thoughts and emotions of those around one, and, indeed, with one's own mental life.

Finally—and here we come back to the idea behind multiple intelligences—the arts allow us to express what is important but cannot be captured in words—at least not in poetic words. As the dancer Isadora Duncan once remarked, "If I could say it, I wouldn't have to dance it." ■

Howard Gardner is the John and Elisabeth A. Hobbs Professor in Cognition and Education at the Harvard Graduate School of Education. His most recent books are The Disciplined Mind: What All Students Should Understand *and* Intelligence Reframed: Multiple Intelligences for the 21st Century.

Making the Case for Arts in Schools

By David T. Gordon

"When young people are involved with the arts, something changes in their lives," reads the introduction to the newly released report, *Champions of Change: The Impact of the Arts on Learning*. A collection of seven research studies by top arts-education scholars, *Champions of Change* aims to tell just what that something is and how the change comes about. In doing so, it offers an intriguing look at some successful arts programs. Some highlights:

• Researchers from the Center for Arts Education Research at Columbia University's Teachers College studied the artistic experiences of 2,046 public school students in grades 4 through 8. Using a combination of standardized tests, student questionnaires, surveys of teachers and school administrators, and classroom observation, the researchers found that students in "arts-intensive settings" showed more creativity and originality, better cooperation with teachers and other students, and more effective articulation of ideas and feelings than students in schools where the arts received little emphasis. Such students also showed more confidence in their study skills. The authors also write that when socioeconomic status was taken into account, "the results...were more firmly tied to rich arts provision than to high economic status," though they don't elaborate on evidence to support that claim.

• In an effort to determine the relationship between arts involvement and student performance (see main story), a team of researchers at UCLA examined the results of the 1988 National Educational Longitudinal Survey (NELS: 88), a Department of Education survey that tracked the performance of 25,000 secondary school students for 10 years. According to the NELS:88 data, students involved in music programs outperformed their peers in mathematics, while those who took part in theater programs had better reading skills, the researchers say. Although they are careful not to claim a cause-and-effect link between arts involvement and student successes, the researchers write that "students involved in the arts are doing better in school than those who are not—for whatever constellation of reasons." The researchers also compared the work of students from low-income backgrounds who were engaged in the arts with those from low-income backgrounds who were not. Students with arts involvement also showed better performances in math and reading.

• In 1992, the Chicago Arts Partnership in Education (CAPE)—a program pairing schools with local arts agencies and community organizations—began integrating the arts with learning across the curriculum in nine public elementary schools.

Students engaged in the arts learn to ask more "what if" questions and to freely talk about what they believe.

Researchers led by James Catterall of UCLA surveyed CAPE teachers, artists, administrators, and students. The Catterall report identifies some characteristics of the most effective teacher-artist collaboration: "On the teachers' side, these [characteristics] are a willingness to let go of some control, openness to new ideas, flexibility, and risk taking.... On the artists' side, we would identify organizational skills, punctuality, good listening skills, as well as interest in and understanding of how children learn."

• The Young Talent Program, a performing arts program in the New York City Public Schools, provides dance, music, or theater classes and professional development at schools with little or no arts instruction. Talented students are then identified and offered advanced training at local professional studios and cultural institutions. Researchers from the University of Connecticut's National Research Center on the Gifted and Talented studied the experiences of 23 mostly at-risk young people, ages 10-26, who had participated in Young Talent. Based on extensive interviews with students, their families, and educators, as well as on academic records, the longitudinal study identified some of the challenges facing talented students: "In some schools, poor grades or other academic deficiencies disqualify students from arts activities. School arts programs are rarely challenging enough for talented students, and professional instruction is expensive. In contrast to sports, or outside interests such as chess, computers, debate, or science, many parents and teachers do not recognize or appreciate the importance of arts study or its relevance to success in school and future opportunities."

• Dennie Palmer Wolf from Harvard's Performance Assessment Collaboratives for Education examined Creating Original Opera (COO), a professional development program of the Metropolitan Opera Guild that trains K-12 teachers to help their students create, perform, and produce original operas. Looking at four classrooms in which COO was used, Wolf writes that students collaborated with each other more often and effectively in this arts environment than in the non-opera settings she examined. Such collaboration included offering constructive criticism, taking turns and asking questions, and using current conversations to shed light on issues or ideas that had come up earlier. Wolf also asserts that collaboration became more complex and effective as the course continued.

• Researchers from Project Zero at the Harvard Graduate School of Education, led by Steve Seidel, examined two educational programs of Shakespeare & Company, a professional theater group based in Massachusetts: a summer institute for teachers and an autumn 10-play festival in which 400 students perform Shakespeare for each other. The program succeeds, Seidel writes, by viewing "the most difficult texts as challenges well within the capacity of typical adolescents." By first studying and then performing the plays, students learn to actively explore the texts, work in teams to solve problems, and

build relationships with adult experts. After diving into and grappling with Shakespeare's complex texts, some students reported that they found complex texts in other subjects, like math and physics, easier to tackle, too. The teacher-training program offers educators a deeper understanding of Shakespeare and of the possibilities of theater as a teaching tool, the report says.

• In a 10-year study, Shirley Brice Heath of Stanford University's Carnegie Foundation for the Advancement of Teaching examined after-school programs for at-risk youths. What qualities, she asked, made programs in the arts, sports, and community service effective for learning and development? Heath discovered, to her surprise, that arts-based organizations had the most powerful effects on young people. They offered the best opportunity to develop communication, complex thinking, and problem-solving skills. The report contends that those who engage in the arts learn to be more comfortable with abstract concepts and hypotheses, to ask more "what if" questions, and to freely talk about what they think and believe. ■

Champions of Change: The Impact of the Arts on Learning *is available online at* ***http://artsedge.kennedy-center.org/champions.*** *Or request a free copy via e-mail to* ***pcah@neh.gov*** *or via mail to Arts Education Partnership, One Massachusetts Ave., NW, Washington, DC 20001.*

Tinkering with Title I

By Kelly Graves-Desai

The debate continues about how to reauthorize Title I of the Elementary and Secondary Education Act, the federal program that provides $8 billion to K-12 schools with high proportions of economically disadvantaged students. The discussion has examined how well the 1994 amendments have been implemented and how they should be refined.

The amendments required states to focus Title I funds on schoolwide improvements rather than on programs targeting individual students. They also included provisions that states set up standards and accountability measures for student achievement. This move toward standards-based reform was made to encourage states to hold economically disadvantaged kids to the same standards as their classmates.

Most agree that it's too soon to tell whether the changes in Title I will have a positive impact on disadvantaged students' achievement, but one 1999 Department of Education report, *Promising Results*, highlights some positive indicators. For instance, since 1994, National Assessment of Educational Progress reading scores have increased by eight percentage points (close to one grade level) for 9-year-olds in the highest poverty schools. And, according to Christopher Cross, president of the Council for Basic Education and chair of a recent independent panel report on Title I, states have made progress in developing quality standards. "The states are pollinating each other, and within the next five years you're going to see a real commonality among state standards around the core subjects," says Cross.

However, large gaps in achievement persist and improvements have been slow in coming. As a result, some critics say that no amount of Title I tweaking will help and that there needs to be a shift in control of funding. The "Straight A's" amendment, which congressional conservatives have enacted in the House as part of reauthorization, would allow schools with improved performance to use Title I funds at their own discretion. Former Reagan administration official Chester Finn Jr. argues that "the idea of federal government driving reform from the top down has itself been turned on its head by energetic states and schools that are not the key source of ideas."

Others, like Harvard's Gary Orfield, counter that Washington still has an important role to play but needs to get tougher on states that have not complied with Title I's accountability provisions (see *insights*, p. 8).

According to Amy Wilkins of Education Trust, a Washington, DC, advocacy group, accountability is the newest piece of Title I. "Before 1994, you just turned on the tap and money came out. Title I was just a funding stream," she says. "[The government] didn't ask for anything back. Now Title I is holding schools accountable for raising achievement for disadvantaged students, and it'll take time to get them to understand that the money is conditional." However, the Citizen's Commission on Civil Rights, a watchdog group, reports that the Clinton administration has failed to enforce serious accountability.

While the federal government is doing what it can to encourage better accountability, there are limitations on its ability to manage change from the top, says John Jennings, director of the Center on Education Policy in Washington, DC. "We have a complex system intentionally set up this way to preserve our democracy," he says. "It is difficult for one level [of government] to give orders to another. It is not the role of the federal government to tell states what to do. But [citizens groups] can be a prod to the feds who can in turn prod the states. That's how our system works."

States and school districts might find some guidance in meeting the Title I provisions in a recently released guide from the National Research Council. *Testing, Teaching, and Learning* provides schools with frameworks for aligning standards with assessments. According to the report, "standards-based policies can affect student learning only if they are tied directly to efforts to build the capacity of teachers and administrators to improve instruction." The study's director, Robert Rothman, says, "Our aim is to speak to all states, because even those who are far along in developing accountability and assessment plans need to continually look at what they are doing." ■

For further information

An Educators Guide to Schoolwide Reform. Washington, DC. American Institutes for Research, 1999
www.air.org

Title I at Midstream: The Fight to Improve Schools for Poor Kids. Washington, DC. Citizen's Commission on Civil Rights, 1998
www.cccr.org

Testing, Teaching and Learning: A Guide for States and School Districts. Washington, DC. National Research Council, 1999
www.nap.edu

Promising Results, Continuing Challenges: Final Report of the National Assessment of Title I. Washington, DC. U.S. Department of Education, 1999
www.ed.gov/offices/OUS/eval/elem.html

Measured Progress: The Report of the Independent Review Panel on the Evaluation of Federal Education Legislation. Washington, DC. U.S. Department of Education, April 1999
www.ctredpol.org/policy_papers/policy_papers.html

Facts, Not Fads in Title I Reform

By Gary Orfield

It requires hard work to foster and keep good schools in poor communities, and that work has never been so important. With the trend toward resegregation and with the virtual abolishment of affirmative action, Title I remains one of the few means to narrow the achievement gap between affluent and disadvantaged children.

Title I has been the largest federal program for impoverished public schools for more than 30 years. This legislation is expiring and must be renewed by Congress, which seems determined to turn the dollars over to the states with no real protections against their misuse. Politicians who say they care deeply about the fate of our children should look carefully at the evidence on Title I and vote on the basis of proven research, rather than on political expedience. If Title I is the ark that carries vulnerable children from dysfunctional and overwhelmed schools to hopeful futures, it has to be rebuilt with the greatest care.

Unfortunately, little serious research has been done on why Title I programs have not produced larger gains. In an effort to inform the current debate, The Civil Rights Project at Harvard initiated a research project on Title I's impact and potential. The project, which involved researchers from Harvard, RAND, Johns Hopkins, Teachers College, and other institutions, critically examines some of the basic assumptions underlying the education reform efforts of the last two decades. The research also contributes solid evidence about paths to educational gains and underscores the civil rights implications in this legislation that affects millions of black and Latino students.

This new research suggests that Title I dollars should be directed toward ensuring greater accountability in the program. That means funding programs that have solid evidence of impact on learning, such as Success For All and Reading Recovery; enforcing accountability provisions for schoolwide use of funds; and terminating funding for existing policies where no benefits can be documented in independent evaluations.

According to a recent report by the American Institutes of Research, only a few of the 17 eligible research-based programs listed in the Comprehensive School Reform Demonstration Program show strong evidence of benefits. Lawmakers should also consider ensuring that research and experimentation on additional approaches are independently evaluated with random assignment experiments when possible.

To be successful, the new Title I must permit sufficient autonomy for serious long-term implementation of schoolwide reforms, rather than disrupting them with inconsistent policies and assessment practices. It should also be extended to higher grade levels and higher order skills, including a serious high school program like the Talent Development High School under development at the Johns Hopkins CRESPAR Center.

In addition, research indicates that funding should be directed toward improving the quality of teaching. This requires new policies and incentives to get good teachers and administrators to work in Title I schools and to stay there. It also means that we must encourage long-term retraining of teachers who will need to implement curricula supported by tests assessing the more complex skills involved in those approaches.

Other research-based recommendations include:

- lowering class size in the early grades;
- using school choice, magnet schools, and other techniques to permit students to transfer from high-poverty, low-achieving schools to more successful schools, as prescribed in the 1994 legislation;
- sustaining long-term commitments to maintaining strong curriculum materials, appropriate assessments, and serious teacher education programs;
- focusing assessments not only on raising average achievement in schools, but also on raising the achievement of each racial and ethnic group;
- conducting more accurate assessments of limited-English-proficient students, and building support for language-development programs into the core of Title I.

The Clinton administration's proposal for Title I emphasizes state accountability systems of uneven quality that are often not focused on program evaluation and might actually do additional harm to low-income children. Strong points of the president's plan include efforts to assure that low-income children have teachers trained in their subject, more teacher training on the job, lower class size, and forcing failing schools to change.

But the president is advocating excessive decentralization and the popular policy against "social promotion," which, according to a recent National Academy of Science (NAS) study, produces even higher dropout rates for low-income students without educational gains. The Education Department has softened this proposal with more emphasis on remediation, but the social promotion idea is spurring counterproductive policy in Congress.

The voucher movement and other attacks on public schools are clear warnings that continued failure of schools serving impoverished kids will not be tolerated by the public. There is now enough information to demonstrate credibly that Title I can actually bring about educational benefits by focusing on successful approaches and implementing them consistently over the long run. But it will not work if we simply graft onto it ideas and proposals that have popular ratings in the opinion polls. ■

Gary Orfield is a professor of education and social policy at Harvard University. He is the author of a recent report, Hard Work for Good Schools: Facts, Not Fads in Title I Reform, *available from The Civil Rights Project at crp@gse.harvard.edu or www.law.harvard.edu/civilrights.*

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